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EFFECTS OF NEIGHBOURHOOD PLANNING ON HOUSING QUALITY IN EDMONTON

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ABSTRACT

The purpose of this study was to evaluate the effectiveness of neighbourhood plans, prepared with the participation of neighbourhood residents, as a means of maintaining and improving the stock and quality of family housing in inter-city areas of Edmonton. The effectiveness of the plans was measured in relation to 1) their success in guiding change in the desired directions; 2) their use in preventing changes that might otherwise have occurred; and 3) whether their implementation led to unforeseen consequences that conflict with the residents' aims. Four neighbourhoods in Edmonton were selected for study.

The results of the study show that the characteristics of the neighbourhoods changed in ways that corresponded with the plan objectives and with the aims of the residents. There was no evidence that the intended outcomes of the plans were not achieved. In all four neighbourhoods, the family housing stock was maintained and improved. Even in the most heavily redeveloped of the case study areas, the erosion of the family stock was halted. However, the desire for a mixed population led to the unforeseen consequence of social upgrading which, in turn, led to an erosion of affordable housing, displacement of renters and signs of conflict in two of the study areas. The plans led to in-migration of high-status newcomers, which did not protect the affordable housing supply, but accelerated it. The study concluded that neighbourhood planning is a worthwhile practice which should be encouraged.

Executive Summary

Rationale of the research

In this study, the effects of four neighbourhood plans, produced and implemented with extensive citizen participation, were evaluated. The plans represented the efforts of residents to prevent the wholesale redevelopment of their neighbourhoods and to promote, instead, an alternative form of revitalization, based on preservation and renovation of the family housing stock - meaning mainly single-detached and semi-detached housing. The neighbourhoods selected for study were Groat Estate and Riverdale, for which plans were approved in 1977, and Oliver and Garneau, for which plans were approved in 1981 and 1982 respectively.

Methodology and research plan

Methodologically, the study was an ex-post plan evaluation. That means it involved the critical examination of the effectiveness and consequences of plans that had been in force for some time. A goal achievement approach to evaluation was adopted for the purposes of the study. That required the identification of the plans' objectives, the selection of appropriate indicators of goal achievement and compilation of an appropriate database, and the measurement of plan outcomes. The objectives stated in each of the case study plans were identified, and, on the basis of these, five research questions were asked, which provided the structure and direction of the study. In order to answer these questions, performance indicators that would permit pre-and-post-plan comparisons had to be assembled. Indicators of change in housing characteristics, renovation, and sales activity were extracted from the City of Edmonton property tax assessment record, while indicators of demographic and social change were assembled from the census of Canada. Trends in the indicators were analysed for the period from 1971 to 1986. In addition, a questionnaire was administered to house occupants in all four of the study areas. This helped to fill any gaps in the assessment data, and permitted the residents' opinions about the effectiveness of the plans to be obtained.

Review of the effectiveness of the plans

The answers to the research questions indicate that the characteristics of the neighbourhoods changed in ways that corresponded with the plan objectives and therefore with the aims of the residents. There is no evidence that the intended outcomes of the plans were not achieved, in other words, there is no evidence that the plans failed. in all four neighbourhoods, the family housing stock was maintained. Even in Oliver, the most heavily redeveloped of the case study neighbourhoods, the erosion of the family housing stock was halted. The condition of the family housing stock in all four areas was improved in the post-plan periods, through renovation and infill redevelopment in the form of single and semi-detached houses, and row-housing. A qualification must be added, however, with respect to the residents' desire for a mixed population. That led to the unforeseen consequence of social upgrading which, in turn, led to an erosion of affordable housing, displacement of renters, and signs of conflict in Riverdale and Oliver. It may well be that, however worthy, the objective of providing a variety of types of housing suitable for a range of social and demographic groups was unrealistic. Overall, it is concluded that the plans played a positive role in establishing development trends that are consistent with the aims of the residents. Moreover, the value of the plans goes beyond their influence on the development trends that have become manifest to this point. By establishing land use zones to control development, the plans send a firm message that residents will not tolerate erosion of their residential neighbourhoods in the future.

Policy Recommendations

1. Despite the difficulty of measuring empirically the effectiveness of neighbourhood plans, it is concluded that neighbourhood planning is a worthwhile practice which should continue to be encouraged. Neighbourhoods differ in their physical and social characteristics, as well as the types and intensity of problems they face, so neighbourhood planning permits attention to be focused on those unique characteristics and problems that otherwise might be overlooked. The Edmonton research results also verified that neighbourhood plans can be effective instruments for protecting the family housing stock in the inner city and for improving its physical condition.

2. Neighbourhood planning is effective only when there is strong and consistent local support for the plan in all its detail. That reinforces the importance of a participatory approach to neighbourhood planning, since residents are more likely to defend a plan they have had a role in preparing, and to which they are committed, than one imposed upon them by planners and politicians. In turn, the implication is that every effort should be made to encourage cooperation between residents and planners in neighbourhood planning. Well-developed community sub-structures such as community leagues, or the presence of well-educated white-collar workers and professionals are important, since they can form the foundation upon which organized resident involvement in neighbourhood planning can be built.

3. The Garneau and Oliver case studies demonstrated that even in neighbourhoods in which the redevelopment cycle is well advanced, and where homeowners have either moved away or become resigned to the changes that are occurring, the remaining residents are capable of organizing themselves and demanding the preparation of a neighbourhood plan that can have positive outcomes. Politicians and planners should therefore be prepared to initiate participatory planning exercises at all stages of neighbourhood development, even late in a redevelopment cycle.

4. It is expected that neighbourhood residents will occasionally find themselves in conflict after a plan has been approved. Circumstances change, households come and go, and different attitudes emerge about the forms of housing that are acceptable. The approval of a plan does not mark the end of the neighbourhood planning process. Nor should resident

disputes be taken as evidence that a particular plan is failing, or that participatory planning cannot work. Rather, conflict should be regarded as a form of ex-post evaluation, revealing the need to address problems with the plan. It underscores the need for the effects of plans to be continuously monitored, and for their goals and policies to be regularly reviewed.

5. In Edmonton, as in other Canadian cities, there is increasing middle-class interest in inner-city neighbourhoods as places to live. The implication is that neighbourhood planning should be used to try to ensure that such areas, traditionally the location of affordable rental housing, should be prevented from becoming exclusive enclaves of wealthy or high-status residents, resulting in the displacement of renters, including low-income families, the elderly and students. An unintended consequence of the Edmonton plans was to encourage in-migration by high-status newcomers, which did not protect the affordable housing supply but accelerated its erosion. It may therefore be necessary to find some mechanism other than the area redevelopment or community plan to ensure the adequate provision of affordable housing in inner-city areas. There is a close corollary as well, arising from the danger of approaching neighbourhood planning with unrealistic expectations. If plans are framed in the narrow terms of land use regulation, to be implemented through zoning, as the Edmonton plans were, it is unrealistic to expect them to be able to control processes of social change. It is therefore essential, in neighbourhood planning, to give careful consideration to implementation procedures and not to set objectives that are beyond a plan's power to meet.

6. In the mid to late 1970s, when the Edmonton case study plans were being prepared, they were poorly coordinated with the general plan for the city. The neighbourhood plans represent attempts to preserve low-density housing in the inner city, whereas the general plan prescribed that increased densities of development should be pursued there. This reflected a growth management approach to city-wide planning in Edmonton that was logical in the context of contemporary growth trends. Yet, at the same time, residents and planners alike were learning lessons about participatory neighbourhood planning and inner-city revitalization from the examples of cities like Toronto and Vancouver. The practice of neighbourhood planning was changing, as the case study plans illustrate. The general plan fell out of touch with these changes and its coordinating role was in danger of being weakened. The larger implication, in such situations, is that if neighbourhood planning is to become dominated by small groups of residents, each with their own agendas, uncoordinated and inconsistent decisions may be taken. While participatory neighbourhood planning is worthwhile and important, it is also necessary to ensure that strong overall guidance is provided. The broad city-wide objectives of the general plan should be closely linked with neighbourhood plans, as the detailed manifestation of those objectives on the ground. It is usually assumed that the connection exists, but it is often tenuous in practice.

"Effets de la planification de quartier sur la qualité du logement à Edmonton"

Résumé

Motifs de la recherche

Cette étude comportait l'évaluation des effets de quatre plans de quartier, tracés et mis en application avec l'étroite participation des citoyens. Ces plans témoignaient des efforts déployés par les résidents pour empêcher le réaménagement global de leur quartier et plutôt promouvoir une autre forme de revitalisation, axée sur la préservation et la rénovation des logements familiaux, principalement constitués de maisons individuelles et jumelées. Les quartiers choisis étaient ceux de Groat Estate et Riverdale, dont les plans ont été approuvés en 1977, et de Oliver et Garneau, dont les plans ont été approuvés en 1981 et 1982 respectivement.

Plan de la recherche et méthode suivie

L'étude a revêtu la forme d'une évaluation de l'incidence des plans. Elle a entraîné l'examen critique de l'efficacité et des conséquences des plans déjà en vigueur depuis quelque temps. On a donc évalué la mesure dans laquelle les objectifs avaient été atteints. À cette fin, il a d'abord fallu dégager les objectifs des plans, puis choisir les indicateurs pertinents de la réalisation des objectifs, réunir une base de données appropriée et mesurer les résultats des plans. Les objectifs de chacun des plans étudiés ont été précisés et, partant de là, cinq questions ont été posées, qui définissaient la structure et l'orientation de l'étude. Afin de répondre à ces questions, il fallait réunir des indicateurs de rendement qui permettraient des comparaisons entre la situation antérieure au plan et la situation par la suite. Les indicateurs de variation des caractéristiques du logement, de la rénovation et des activités de vente ont été tirées du rôle de l'impôt foncier de la ville d'Edmonton, tandis que les indicateurs de variation démographique et sociale proviennent des données du recensement du Canada. Les tendances des indicateurs ont été analysées pour la période allant de 1971 à 1986. De plus, on a demandé aux occupants des maisons des quatre secteurs étudiés de remplir un questionnaire. Les réponses ont aidé à combler les lacunes des données sur l'évaluation et ont permis d'obtenir l'opinion des résidents sur l'efficacité des plans.

Examen de l'efficacité des plans

D'après les réponses aux questions, les caractéristiques des quartiers ont subi une évolution conforme aux objectifs des plans et, par conséquent, aux buts des résidents. Rien ne prouve que les résultats escomptés n'ont pas été atteints; en d'autres mots, rien ne prouve que les plans ont échoué. Dans les quatre quartiers, le parc de logements familiaux a été préservé. Même dans Oliver, qui a été le plus largement réaménagé, l'érosion du parc de logements familiaux a été arrêtée. L'état des logements familiaux des quatre quartiers s'est amélioré, au cours de

la période qui a suivi le plan, par la rénovation et une densification comportant des maisons individuelles, jumelées ou en rangée. Il faut cependant ajouter une précision concernant la diversification de la population souhaitée par les résidents. On a observé une conséquence imprévue de rehaussement social, qui a entrainé une érosion du logement abordable, le déplacement de locataires et des signes de conflit dans Riverdale et Oliver. Il se peut que l'objectif, si louable fut-il, de produire divers types de logements convenant à un éventail de groupes sociaux et démographiques était irréaliste. Dans l'ensemble, on a conclu que les plans avaient joué un rôle positif dans l'établissement de tendances de développement qui correspondent aux buts des résidents. De plus, la valeur des plans dépasse leur influence sur les tendances de développement qui se sont manifestées jusqu'ici. En zonant l'utilisation du sol pour contrôler le développement, les plans étaient, pour les résidents, une façon sans équivoque de dire qu'ils ne toléreraient pas l'érosion de leur quartier résidentiel dans l'avenir.

Lignes de conduite recommandées

1. Même s'il est difficile de mesurer empiriquement l'efficacité des plans de quartier, on conclut que cette planification est une pratique utile qui mérite d'être encouragée. Les quartiers diffèrent par leurs caractéristiques physiques et sociales, ainsi que par la nature et la gravité de leurs problèmes, de sorte que la planification de quartier permet de centrer l'attention sur des traits et des problèmes particuliers qu'on serait peut-être autrement porté à négliger. Les résultats de la recherche effectuée à Edmonton ont aussi confirmé que les plans de quartier peuvent être des instruments efficaces pour protéger le parc de logements familiaux au coeur de la ville et pour en améliorer l'état.

2. La planification de quartier n'est efficace que si le plan, dans tous ses détails, est solidement et tenacement appuyé par les résidents. Cette constatation fait ressortir l'importance d'une approche participative à la planification de quartier, car il est plus probable que les résidents défendront un plan qu'ils ont contribué à préparer et vis-à-vis duquel ils se sont engagés qu'un plan imposé par des urbanistes et des politiciens. D'un autre côté, il apparait qu'on doit encourager par tous les moyens la collaboration entre les résidents et les urbanistes, dans la planification de quartier. Des sous-structures communautaires bien établies, telles que des associations communautaires, ou la présence de cols blancs instruits et de professionnels sont importantes puisqu'elles peuvent constituer la fondation sur laquelle la participation organisée des résidents à la planification de quartier sera bâtie.

3. L'étude effectuée pour Garneau et Oliver a démontré que, même dans des quartiers où le cycle de réaménagement est avancé et où les propriétaires-occupants sont soit déménagés ailleurs, soit résignés aux changements qui surviennent, les résidents qui restent sont capables de s'organiser et d'exiger la préparation d'un plan de quartier qui puisse avoir d'heureux résultats. Les politiciens et les urbanistes devront être disposés à amorcer une planification participative à toutes les étapes de l'aménagement d'un quartier, même si le cycle de réaménagement est déjà avancé.

4. Il faut s'attendre à ce que les résidents d'un quartier aient occasionnellement des désaccords, une fois le plan approuvé. Les circonstances évoluent, les ménages se remplacent et les attitudes en viennent à différer au sujet des formes de logement acceptables. L'approbation d'un plan ne marque pas la fin du processus de planification d'un quartier. On ne devrait pas non plus conclure à l'échec d'un plan ou de la planification participative simplement parce que les résidents ont des divergences d'opinion entre eux. Ces divergences devraient plutôt être considérées comme une forme d'évaluation de l'incidence, qui souligne le besoin de corriger les faiblesses du plan. Elles montrent aussi la nécessité de surveiller continuellement les résultats du plan et d'en réexaminer régulièrement les objectifs et les lignes directrices.

5. À Edmonton, comme dans les autres villes canadiennes, la classe moyenne s'intéresse de plus en plus aux quartiers centraux comme lieu de résidence. Voilà pourquoi l'on devrait recourir à la planification de quartier pour essayer d'empêcher que ces secteurs, où l'on avait l'habitude de trouver des logements locatifs abordables, deviennent des enclaves exclusives de résidents fortunés ou haut placés, ce qui obligerait les locataires, y compris les familles à faible revenu, les aînés et les étudiants, à trouver un logement ailleurs. Une conséquence imprévue des plans d'Edmonton a été d'encourager l'arrivée de gens haut placés, ce qui n'a pas protégé le parc de logements abordables mais en a plutôt accéléré l'érosion. Il faudra peut-être donc trouver un moyen autre que le réaménagement de secteur ou la planification communautaire pour assurer un nombre suffisant de logements abordables dans les quartiers centraux. Il existe aussi un danger de nourrir des attentes irréalistes, lorsqu'on envisage une planification de quartier. Si les plans sont élaborés selon les limites étroites des règles d'utilisation du sol appliquées dans le zonage, comme ce fut le cas à Edmonton, il est irréaliste d'escompter qu'ils pourront contrôler les phénomènes d'évolution sociale. Il est par conséquent essentiel, dans la planification de quartier, de réfléchir soigneusement aux méthodes de mise en oeuvre et de ne pas fixer d'objectifs qu'un plan n'est pas en mesure de réaliser.

6. Dans la deuxième moitié des années 70, quand les plans visés par cette étude de cas ont été élaborés, ils étaient mal coordonnés avec le plan directeur d'Edmonton. Les plans de quartier cherchaient à préserver le logement de faible densité au coeur de la ville, tandis que le plan directeur y prescrivait des aménagements de plus forte densité. Pour l'ensemble de la ville, la planification se faisait dans une optique de gestion de la croissance, laquelle était logique, compte tenu de la courbe de croissance à cette époque. Mais en même temps, les résidents tout comme les urbanistes tiraient des leçons de l'expérience de villes telles que Toronto et Vancouver, concernant la planification participative des quartiers et la revitalisation des quartiers centraux. La pratique de la planification des quartiers changeait, comme les plans étudiés le démontrent. Le plan directeur ne s'est pas adapté à cette évolution et son rôle de coordination risquait de s'en trouver affaibli. Il faut bien prendre garde, en pareilles circonstances, que la planification de quartier devienne dominée par de petits groupes de résidents, chacun ayant ses propres visées, et que les décisions prises manquent de coordination et de cohérence. Malgré le mérite et l'importance de la planification

participative de quartier, une solide direction d'ensemble est absolument nécessaire. Les objectifs généraux du plan directeur, fixés pour toute la ville, doivent être étroitement reliés aux plans de quartier, qui sont la manifestation concrète et détaillée de ces objectifs. On suppose habituellement que le lien existe mais, en pratique, il est souvent très mince.

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1. Introduction

1.1 Rationale of the Research

The geographical consequences of a political process are examined in this study. Specifically, the effects of local neighbourhood plans, produced and implemented with extensive resident participation, are evaluated. Since the 1960s and the early 1970s, neighbourhood organizations have emerged as powerful actors in the processes of urban development and planning. This is reflected in the large body of academic and professional planning literature that discusses the benefits and costs of participation in planning, as well as the means by which residents might be included in the planning process. To this point, however, little is known about the long-term consequences of participatory neighbourhood planning for the urban environment, although it has long been argued that participation should lead to more effective plans and policies, particularly at the neighbourhood scale, where residents are most likely to become involved in development issues. The research problem was to test these beliefs by evaluating the effectiveness of neighbourhood planning in Edmonton. More specifically, the plans being evaluated represent the efforts of residents to prevent the wholesale redevelopment of their neighbourhoods, and to promote an alternative form of revitalization, based on preservation and renovation of the existing family housing stock.

Keeble (1986) states that research of this kind is both timely and necessary. Likewise, Rich (1979) and Ley (1974) comment on the lack of research into the consequences of organized demand-making in the urban-political process. In this case, "organized demand-making" is defined to include the organized efforts of neighbourhood residents to demand protection for their districts, in the form of local small-area plans. A variety of evaluative studies has appeared in the planning literature in recent years, but they have mostly focused on national housing or planning programs (Myers, 1982; Varady, 1982 and 1984; Alterman, 1988), or on planning policies at the metropolitan scale (Alterman and Hill, 1978; Krumholtz, 1982; Mayer, 1984; Dalton, 1985). There have been few systematic evaluations of plans that have actually been implemented, particularly at the neighbourhood scale. Those plan evaluations that have been reported on have focused on municipal plans (Johnston, Schwartz and Tracy, 1984), or on the construction and design principles contained in small-area plans (Wynn, 1980). The present study is designed to close this gap in the research literature by evaluating the effectiveness of four neighbourhood plans that were characterized by much more citizen participation than is usual for Edmonton.

1.2 Selection of the Study Areas

To meet the needs of an evaluation of the effectiveness of participatory planning, it was decided that the study should be limited to neighbourhoods that satisfied six criteria:

1. They must have had well established neighbourhood organizations with a record of involvement in physical planning issues.
2. They had to have faced severe development pressures of various kinds.
3. They had to be subject to community plans that were authorized by Edmonton City Council, with the approval of the City Planning Department.

4. The neighbourhood residents must have participated more than usual in the formulation of these plans.

5. The plans must have been in place long enough for their effects to have become manifest.

6. The study areas must not have been designated as improvement areas under the federal government's Neighbourhood Improvement Program. To be eligible for that program, neighbourhoods had to be relatively stable, and so could not be experiencing development pressures and rapid land use changes that would qualify them for this study. Moreover, the designation of Canora, Norwood, Richie and Calder as neighbourhood improvement areas between 1972 and 1976, and the exclusion of other Edmonton neighbourhoods from the program, helped to stimulate the kinds of participatory planning that form the basis of this study.

Once these criteria were established, two official planning studies, the "Older Neighbourhoods" reports of 1975 and 1977, were used to identify areas with a reputation for low levels of citizen participation in planning issues (Edmonton, 1975 and 1977). These were then excluded from further consideration, while areas with a good record of participation were noted as possible study areas. Finally, a review of planning department documents permitted areas that had not been subject to neighbourhood plans to be excluded.

After this screening procedure, there remained only four neighbourhoods that satisfied all the predetermined conditions: Groat Estate, Garneau, Oliver, and Riverdale (Figure 1). All were included in the study.

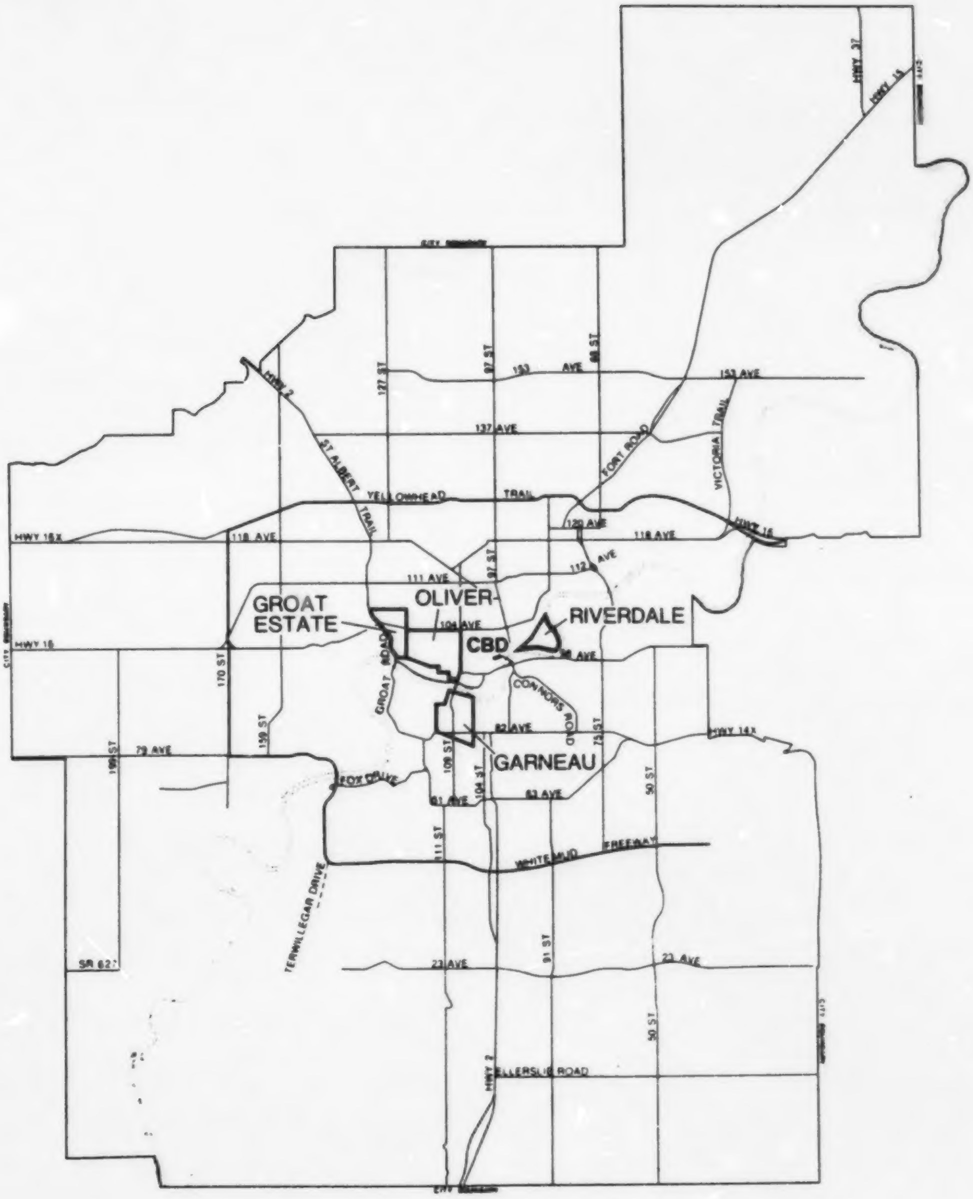

HWY 37
HWY 15
CITY BOUNDARY
HWY 2
127 ST
97 ST
66 ST
153 AVE
153 AVE
137 AVE
ST ALBERT TRAIL
YELLOWHEAD TRAIL
FORT ROAD
VICTORIA TRAIL
HWY 16
120 AVE
HWY 16X
118 AVE
118 AVE
111 AVE
97 ST
112 AVE
GROAT ESTATE
OLIVER
RIVERDALE
CBD
104 AVE
98 AVE
HWY 16
170 ST
149 ST
GROAT ROAD
CONNORS ROAD
82 AVE
75 ST
HWY 14X
79 AVE
156 ST
GARNEAU
FOX DRIVE
109 ST
104 ST
61 AVE
63 AVE
50 ST
111 ST
WHITEMUD FREEWAY
TERWILLEGAR DRIVE
91 ST
23 AVE
23 AVE
SR 627
50 ST
HWY 2
ELLERSLIE ROAD
CITY BOUNDARY

Figure 1. The Location of the Study Areas in Edmonton

1.3 Method Adopted in the Study

In methodological terms, the study is an exercise in ex-post evaluation. As such, it involves the monitoring and assessment of the impacts of plans that came into effect some time ago. The particular approach adopted was that of goal attainment, which required the identification of clearly identifiable plan objectives, the selection of appropriate indicators of attainment and the compilation of an appropriate data base, and the measurement of plan outcomes.

It was possible to extract well defined objectives from the plans under study. They then had to be linked to indicators of attainment, although the choice of indicators was constrained by the data that were available. Many sources and types of data can be used for the purpose of an ex-post evaluation, but in the present instance, the City of Edmonton property tax assessment record and the Census of Canada were the crucial ones. They were supplemented by a survey of residents in the study areas. In addition, various archival sources, such as newspapers and public records, minutes of meetings, planning documents and the like, were used to construct a chronology of events or "action history", an important component of an evaluation.

As much as possible, a before-plan / after-plan form of analysis was adopted to try to determine the impacts of the plans. Local neighbourhood group representatives were also asked their opinions about the effectiveness of the plans, through unstructured interviews, while the residents' views were drawn from the questionnaire survey. The general purpose was to answer three broad questions which are common to any ex-post evaluation:

1. Have the plans been successful in guiding change in the desired directions?
2. Have the plans been used to prevent changes that otherwise might have occurred?
3. Has implementation of the plans led to any unforeseen consequences that conflict with their spirit and intent?

1.4 Scope of the Study

In all four of the study areas, groups of residents mobilized to try to counter various development pressures, including regulations proposed by City of Edmonton planners to control development. They demanded the adoption of plans, or changes in policies, that would remove or curtail development pressures and so ensure that an established environmental character and lifestyle were protected. More specifically, in three of the neighbourhoods the residents felt that their areas were being threatened by the encroachment of various commercial land uses, as well as by high-rise apartment buildings. In the remaining case, Riverdale, the City of Edmonton was the direct threat due to a policy of acquiring all residential property in the valley of the North Saskatchewan River and converting it to parkland. In response to these development pressures, the local residents' organizations demanded the opportunity to contribute directly to the preparation of neighbourhood plans. They even prepared their own plan documents to make their desires clear. Consequently, the plans that were eventually approved by Edmonton City Council entailed more resident involvement than usual. The selected neighbourhoods can therefore be taken as good examples of participatory planning in the local Edmonton context.

A preliminary review of the case study plans revealed four common objectives around which performance tests could be designed:

1. To maintain and, if possible, increase the amount of low-density family housing - "low density" being defined as detached and semi-detached single-family dwellings.
2. To improve the overall condition of the neighbourhoods by residential rehabilitation and appropriate forms of infill redevelopment; in this case, "appropriate" means replacing houses with residential buildings of similar scale and design.
3. To prevent the displacement of the incumbent residents - a common outcome of neighbourhood revitalization and gentrification - by providing for the construction of a range of housing types suitable for senior citizens and low-income families, among others.
4. To prevent commercial activities from encroaching upon the residential sectors of the neighbourhoods, whether through redevelopment or through structural conversions.

By fulfilling these objectives, residents and planners hoped to protect the residential character of the study areas without preventing desirable changes, including controlled redevelopment. The central goal of the research was to determine whether these objectives are being realized, and so to assess the effectiveness of participatory neighbourhood planning in Edmonton. In turn, this assessment depends on the answers to five questions which set the focus for analysis and interpretation:

1. **Has the family housing stock been maintained since the plans took effect?** The answer to this question is intended to reveal the effectiveness of the plans in achieving the first objective and, in part, the fourth objective.
2. **Is there evidence to suggest that the condition of the family housing stock improved after the plans came into effect?** This question is designed to help measure the effectiveness of the plans in achieving the second objective.
3. **Is there evidence to suggest that the mix of social groups was increased, or that the incumbent population was displaced, after the plans came into effect?** The effectiveness of the plans in achieving the third objective is addressed in this question.
4. **Is there any evidence of speculation in the neighbourhood housing markets after the plans came into effect?** This, too, is related to the third objective.
5. **Is there evidence to suggest that unwanted development has been prevented, and that issues of concern to the residents have been addressed since the plans came into effect?** These questions provide general conclusions about the effectiveness of the plans with respect to all four of the plan objectives.

1.5 The Structure of the Report

Following from this introduction, the body of the report is organized into six chapters. In chapter 2, the theoretical basis of the research is reviewed, to develop a conceptual framework for the research plan. This entails the integration of ideas drawn from the substantive literature in planning, as well as from urban geography and the related social sciences. Because the plans under study were designed to revitalize the respective neighbourhoods, and because their formulation involved a high degree of resident participation, the review focuses upon citizen participation in planning and neighbourhood revitalization.

The research methods are described in chapter 3. Since the purpose is to evaluate the effectiveness of neighbourhood plans some years after they were approved, the research plan follows the methodology of ex-post evaluation. The planning and program evaluation literature are used to demonstrate the need for ex-post evaluation and some of its practical difficulties, as well as the methods of conducting an evaluation. It is established that precise, well-defined plan objectives are needed to permit clear, empirically measurable research questions to be formulated. The five research questions are restated in chapter 3, followed by a review of the data sources used to try to answer them.

Chapter 4 is a history of development trends and issues in each of the study areas. First, the planning system within which the case study plans were created is described, followed by the early histories of the communities, an outline of development pressures and land-use conflicts, and the processes of plan preparation. This helps to establish the planning context, the character of the study areas and the nature of the residents' involvement in planning conflicts, as well as their role in ensuring that the plans were committed to preserving family housing and preventing excessive redevelopment.

Chapter 5 is devoted to analyses of data extracted from two primary sources: the tax assessment records of the City of Edmonton; and the censuses of Canada from 1971 to 1986. Some supplementary data obtained from a survey of residents in the study areas are used as well.

The chapter begins with a profile of economic and social trends in Edmonton between 1971 and 1986, to establish the context within which changes in the study neighbourhoods took place and to provide a backdrop against which the research data must be interpreted. In the analysis, processes of conversion, reconversion, infilling, and redevelopment are examined first, to determine whether or not family housing has flourished under the neighbourhood plans. This information allows the first research question to be answered. Next, to answer the second research question, data extracted from the assessment record and from the questionnaire survey are used to determine the extent to which the housing stock was improved through renovation after the plans were approved. National census data are then used to examine demographic and social changes in the study areas before and after the plans were approved. The analysis here is directed toward answering the third research question. Finally, because the plans aimed to preserve the low-density family housing stock, they may have enhanced the value of the houses, and may even have encouraged speculation in the single-family housing market. Sales data extracted from the assessment record are used to address this issue, in answer to the fourth research question.

Chapter 6 is an analysis of the impact of the respective neighbourhood plans on various development issues. Representatives of the neighbourhood organizations were informally interviewed and asked to rate the effectiveness of the plans in preventing unwanted development. This information was supplemented with articles from various community newsletters, as well as from newspapers and magazines, since cases in which developers proposed to construct buildings that conflicted with the plans tended to spark well-documented objections from the residents.

These data are combined with responses to a series of evaluative questions put to residents in the questionnaire survey, in order to answer the fifth research question.

In chapter 7, a summary of the research results is presented and conclusions are drawn about the effectiveness of the plans. Then, the usefulness of the method adopted is reviewed, followed, in the final section, by a statement of the study's implications for housing and urban planning policy.

2. Literature Review and Conceptual Framework

2.1 Introduction

Two theoretical concepts are central to the research: first, participatory neighbourhood planning; and, second, inner-city residential revitalization.

It is assumed that certain benefits flow from participatory neighbourhood planning, as a matter of course. The ideology, and even the theory, of citizen participation have tended to assume that good physical and social outcomes will result, notably through an increased responsiveness to local characteristics, desires and problems (Rohe and Gates, 1985). These outcomes include, among others, improving the physical condition of the housing stock, controlling unwanted land use changes, securing social diversity and stability, and avoiding the displacement of established residents. Yet this general assumption has rarely been tested in any context, let alone in the inner-city neighbourhoods of Canadian cities. For that matter, few Canadian cities have well established systems of neighbourhood planning, so the essential condition for an evaluative study is not easily satisfied. The opportunity to examine Edmonton's experience was thus of particular value.

Inner-city revitalization may be sparked by neighbourhood plans that create conditions favourable to the redevelopment or renovation of areas. At the same time, revitalization, particularly in the form of redevelopment, may be a source of conflict between neighbourhood residents and development interests. Most commonly, conflict is sparked by displacement of incumbent residents to make way for high-rise apartment buildings and offices. Some residents are happy to profit by selling their property to developers, but others prefer to participate in the planning process to try to prevent redevelopment. Political-urban geographers have attempted to explain this in terms of locational conflict theory and that is examined first, to help establish the geographical basis of the research. The concept of citizen participation as it pertains to neighbourhood planning is then examined, followed by inner-city residential revitalization.

Neighbourhood revitalization processes at work in the 1960s were the main stimulus behind the growing importance of citizen participation in planning in the 1970s and 1980s. In conceptual terms, neighbourhood revitalization trends help to establish why citizen participation in neighbourhood planning became important. However, the role played by neighbourhood planning in encouraging residential revitalization has not been given a full treatment in the existing body of research literature in Canada.

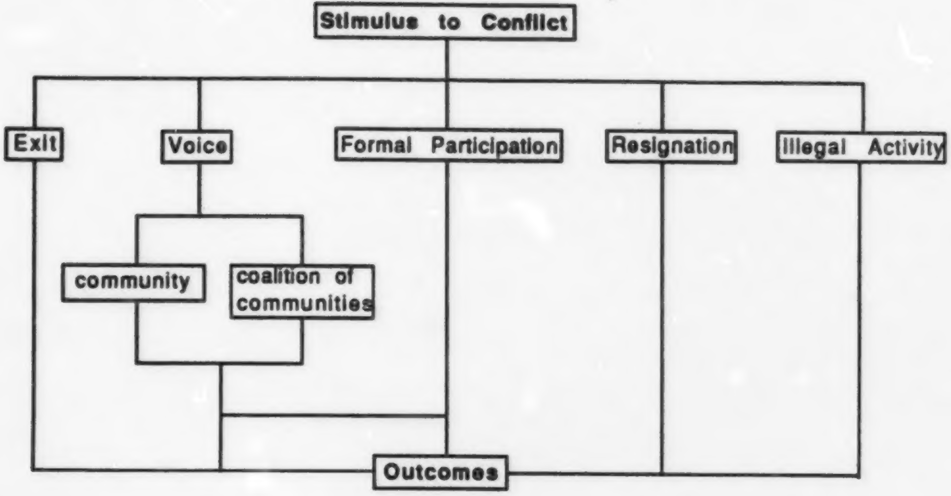
2.2 Neighbourhood Development and Planning and Locational Conflict

Geographers have contributed to the understanding of land use conflicts by adopting the theoretical concept of locational conflict, within the sub-field of geography known as political-urban geography. This study is, therefore, grounded in political-urban geography. Of central concern in this part of the discipline is the analysis of the ways in which political activities affect the spatial development of the city. In the local urban environment, planning is a political process in which the changing spatial form of the city is, at least in part, the negotiated outcome of interactions among various interest groups (Ley, 1983). The interest groups include planners, city-council members, developers and members of the public in the form of neighbourhood interest groups. Since these interest groups may have different goals, values and motives for involvement in planning issues, ranging from economic advancement to environmental aesthetics and so on, urban planning is often characterized by conflict as the interest groups attempt to impose their respective sets of values on the urban landscape (Cox and Johnson, 1982).

Residential neighbourhoods are a reflection of the spatial grouping of individuals who have similar lifestyle preferences and economic resources, and who locate themselves with like-minded people in order to enhance their lifestyle. These people may try to encourage the location in their area of residents and types of development which they deem to be suitable, and will attempt to exclude undesirable people and development. In a middle-class residential neighbourhood, this may manifest itself as an attempt to prevent the construction of apartment buildings and office and commercial complexes, or the in-migration of ethnic minorities and low-income groups. In this way, the residents hope to maximize positive externality effects, such as the maintenance of property values and the aesthetics of the area, as well as the attraction of other wealthy residents to the neighbourhood. The corollary is that they hope to minimize negative externality effects, such as the construction of buildings that clash with the character of the area, and cause property values to fall and existing residents to be displaced (Cox, 1973; Cox and Johnson, 1982; Dear, 1976; Kirby, 1982). In some instances, the residents' efforts to prevent undesirable developments from occurring result in cooperative efforts, not only among residents, but between residents, politicians and planners, in attempts to produce neighbourhood plans that reduce redevelopment pressure. In most cases, however, politicians and planners have been perceived to be the source of policies that have imposed negative externality effects upon neighbourhood residents. Increasingly, residents have cooperated among themselves to oppose such policies, and neighbourhood organizations, responding to land use conflicts, are now clearly established as important actors in the urban-political system (O'Brien, 1975; Yates, 1977; Sharp, 1981).

The existence of politically organized neighbourhoods reflects the operation of human territoriality. The neighbourhood organizations formed to pursue local interests in cases of land use conflict represent a form of territorial group loyalty against threatening developments (Soja, 1971). These cases are particularly geographical in nature. The decision to construct an apartment or office building on a specific site, or the development of a plan for a neighbourhood, have impacts that are geographically limited. In the case of an apartment or office building, those who live immediately adjacent to the development will either benefit or suffer most from its externality effects. For example, increased traffic flow and associated noise and air pollution, as well as reduced resident parking space, or the shadow effect of a large building on surrounding houses, are some of the negative externalities that increase with proximity to the development. In the case of a neighbourhood plan, a spatially defined area is governed by planning regulations that control development within its boundaries. Those who live within the plan area are directly affected by the plan; those outside the plan boundaries are not. This helps to illustrate the particularly geographic nature of neighbourhood planning conflicts.

Dear and Long (1978) have developed a model that illustrates community strategies in cases of locational conflict. It is used here to describe the cases adopted for study. In general, it is possible to recognize five strategies that may be available to neighbourhoods involved in land use conflicts: exit, voice, resignation, illegal action, and formal participation (Figure 2). Exit is the course of action adopted by residents who decide to leave their neighbourhood for one that they feel satisfies their needs more closely. In this study, exit means the departure of residents from a neighbourhood due to the pressures created by redevelopment, or by the City of Edmonton's planning policies. Resignation is one of the more common forms of resident behaviour. On all but the most critical issues, most residents will resign themselves to the situation. Even when important issues are at stake, most residents will rely on someone else to address them, due to the combined effects of apathy, free-riding on the efforts of others, and alienation. This course of action is particularly prevalent in communities that are regularly ignored or overruled. Residents come to believe that opposition to a plan is futile, and so resign themselves to new circumstances. In the case-study neighbourhoods, the majority of residents adopted a version of free-riding, in which they gave tacit support to the actions of a core group of organizers who fought against redevelopment proposals. Those who adopt the free-riding form of resignation usually feel that their own efforts would probably make no difference anyway. It is essential for the neighbourhood group to


Stimulus to Conflict
Exit
Voice
Formal Participation
Resignation
Illegal Activity
community
coalition of communities
Outcomes

(Adapted from Dear and Long, 1978)

Figure 2. Strategies Available to Neighbourhoods Involved in Locational Conflict

mobilize these people, since their silence is usually interpreted by local government as tacit approval of a plan or policy.

The strategies of voice and formal participation are central to this study. In resorting to the voice option, residents try to change deteriorating conditions, halt redevelopment, or prevent the approval of plans, by articulating their interests. These residents stay in the neighbourhood and contest the issues. In most cases, voice has involved gathering signatures for petitions, lobbying aldermen, and writing letters to newspapers, as well as forming local residents' groups to present a united voice. This strategy requires the residents to expend substantial amounts of time, effort and money, so it may lose momentum if a development conflict continues for an extended period. The residents' energies may re-focus on their families and jobs, and the strategy of voice may falter. In the case-study neighbourhoods, a core group of organizers in each area formed themselves into active community groups, with the aim of preventing local redevelopment. They adopted the various techniques of voicing their opinions, but, in addition, they developed their own detailed proposals for the future of their neighbourhoods. City council accepted the efforts of the neighbourhood groups and they were permitted to make a transition into formal participation in the planning process.

In practice, formal participation has tended to make an irregular and discontinuous contribution to the decision-making process (Dear and Long, 1978). In planning, it has usually involved attendance at public hearings,or information sessions, as well as the opportunity to sit on advisory committees. All too often, this amounts to cooptation, since the decision makers may be able to manipulate the process of participation for their own benefit. The cases that are the focus of this study, however, represent a much fuller form of participation in the planning process. The residents in the study areas were well organized and had access to resources that permitted them to undertake their own detailed planning studies, and even to produce their own plan documents. Because of their actions, they were able to gain much fuller involvement in neighbourhood planning than was usual in Edmonton.

The final option in Dear and Long's scheme is illegal action, a more extreme form of voice. It involves such behaviour as squatting, damage to property and the like. Actions like these are usually associated with social groups that feel completely hopeless within the formal decision-making process. This situation does not apply in the neighbourhoods under study.

2.3 The Concept of Citizen Participation as It Pertains to Neighbourhood Planning.

Neighbourhood revitalization and neighbourhood planning involve citizen participation, so the first theoretical concept that is central to this study is participatory neighbourhood planning. The theoretical basis of citizen participation in planning is outlined to help provide a framework within which the cases that are the focus of this study can be understood.

By the late 1960s, particularly in the United States but also in Canada, there was "a swelling voice of private citizens expressing their needs and concerns through a growing number of new organizations and action groups" (Axworthy, 1972: 2). At a philosophical level, the efforts of these people represented an attempt to bring about an improvement in the democratic system of decision making, in response to what they perceived to be unfair municipal government practices. Some called for a decentralization of political power to neighbourhoods (Morris and Hess, 1975); others, with a more moderate outlook, called for a modification of the existing system and an honest attempt to incorporate citizen participation into that system. At a more practical level, people were striving to achieve an improved quality of urban life, responding to the problems of overcrowding, deteriorating housing, and urban poverty of the 1960s and 1970s. At the most pragmatic level, citizens were calling for participation in order to protect and enhance their safety and comfort and their investments in their homes, as well as the stability of their neighbourhoods. The neighbourhood organization became an important instrument in attempts to achieve these aims.

Residents value their neighbourhood organizations, even if they themselves are not actively involved, because they represent a stabilizing force and a commitment to the area (Bratt, 1983). Residents often have affective bonds to their locality, in the form of relationships with other residents, the beauty of the area, its prestige, and a sense of identity and security. Such bonds mirror their personal values and life goals, and defence of the neighbourhood reflects defence of these ideals, as well as protection of monetary value. Failure by politicians and planners to grasp the importance of place values, viewing neighbourhoods as simply parcels of land, has often led to conflict between neighbourhood residents and decision makers. The motivations for citizen participation, therefore, are a combination of immediate concerns, such as protection of property values, with broader concerns such as increasing alienation of citizens from governments that are perceived to have been slow, inefficient and reluctant to address urban problems and to involve citizens in decision making (Johnson, 1984; Paddison, 1985).

For there to be effective citizen participation, competent leadership skills and an assortment of knowledge must be available within the neighbourhood (Bellush and Hausknecht, 1967; Alinsky, 1971). The citizen participation literature reveals a tendency for high status groups to dominate political participation (Morgan, 1984). In the context of urban land use issues, knowledge of politics and planning, together with the ability to communicate with professionals such as planners and architects, tends to be more common in areas inhabited by well educated, highly paid, white-collar workers and professionals (Cybriwsky, 1978 and 1986; Clay and Hollister, 1983; Clay, 1979; Holcomb and Beauregard, 1981; Ley, 1987). Such people are more likely to be able to mobilize, maintain an organization through the course of a long dispute, and communicate with the decision makers on a more equal footing. The ability to organize and participate, however, is not exclusive to those of higher socio-economic status. Poorer neighbourhoods that contain well developed community sub-structures, such as existing community leagues or other associations, can also organize quickly and effectively. Nevertheless, most poor neighbourhoods lack a firm organizational springboard upon which organized participation in land use issues can be built.

Various interpretations of citizen participation in planning have been published since the late 1960s. Sharp (1981), for instance, distinguished between cooperative and adversarial forms of participation. The former consists of joint efforts between citizens' associations and governmental bodies, to try to solve problems through mutual effort. The latter is usually associated with the use of pressure tactics, by citizens, to try to force changes in plans and policies. In rather similar vein, Suskind and Elliot (1984) identified three patterns of public participation: first, paternalism, consisting of highly centralized decision making wherein advice from citizens is neither sought nor accepted; second, conflict, in which decision making is centralized but residents' groups struggle to gain some effective say in policy decisions affecting their neighbourhoods; and, third, co-production, a less frequent pattern, in which decisions are made through face-to-face negotiation between decision makers and residents. In many instances, citizen participation has been incorporated into decision-making processes, but in a manner that merely pays lip-service to the concept. Pateman (1970) recognized this and distinguished between pseudo, partial, and full participation. Pseudo participation occurs when authorities manipulate residents by going through the motions of informing them about plan proposals, but without providing the opportunity for an effective response from those likely to be affected. This corresponds to the "non-participation" level of Arnstein's (1969) "ladder". Partial-participation, in Pateman's scheme, is a situation in which two or more parties may influence each other, but final power of decision rests with one party alone. On Arnstein's ladder this corresponds with the "tokenism" levels, including consultation with residents and the granting of small concessions to placate them. Full participation implies a situation in which each individual, or group, in a decision making process has equal influence over the final decision. Arnstein refers to this as "partnership" and it is near the top of her ladder of participation, where complete citizen control is found.

Local participation may be generated "from below", in the form of a neighbourhood organization, or it may be fostered "from above" by a municipal or higher level of government. The neighbourhood groups arising from the grass-roots level (due to the perceived negative effects of redevelopment proposals, perhaps), may be temporary organizations only. Even if an issue is only partially resolved, the organization may disintegrate due to the pressures of voluntary action (Janelle and Millward, 1976). Attempts have been made by governments to foster local participation, but while such efforts tend to result in more permanent involvement, formal participation within the established institutions of government may be susceptible to manipulation, cooptation and tokenism (Arnstein, 1969; Ley, 1974).

The neighbourhoods chosen for study in Edmonton are cases in which residents were able to gain a more effective role in the development of plans for their areas. They illustrate a more cooperative form of participation than is usually seen in neighbourhood planning and are akin to Suskind and Elliot's co-production style of participation. Moreover, they are examples of participation created "from below", through the strategy of voice, which became formal participation in the development of neighbourhood plans.

2.4 The Evolution of Participatory Neighbourhood Planning

Citizen participation in planning has become more common since the late 1960s, as demands for a more effective voice in decision making spread throughout the United States and Canada. In the following section the evolution of participatory neighbourhood planning is described, in order to demonstrate how the cases under study were able to come about and to illustrate the operation of the theoretical concepts in documented cases of neighbourhood planning. The United States is examined first, since much of the American experience, in terms of planning issues and policies, was adopted by Canadian academics and planners. The development of participatory neighbourhood planning in Canada and, more specifically, in Edmonton is described after that.

2.4.1 The United States

As rapid suburban development continued in the United States after the Second World War, the realization was reached by both politicians and planners that comprehensive and regional planning were needed to cope with the growth of cities and their associated problems. A pattern was emerging in which the middle-classes were moving out of some inner-city areas, leaving the central cities to poorer groups of people. Municipal revenues fell in the central cities, and those least able to afford them were forced to try to bear the costs of services and cost-recovery schemes. The inner-city housing stock was deteriorating and social problems of crime and poverty were increasing. The response, by government, was the initiation of large-scale redevelopment schemes. It was the intention of these schemes to encourage construction of a variety of types of housing, ranging from luxury houses to low rent apartments, as well as to provide sites for public facilities and commercial land uses. In practice, however, redevelopment became an attempt to attract any development that could raise revenue for the civic governments and help them compete with the suburbs for the revenue that could be generated by the middle-class (Frieden and Kaplan, 1975).

City councils tended to lose sight of the real needs of their residents, in their anxiety to court developers.

In the late 1950s and early 1960s, planning theorists, sociologists and political activists began to express their dissatisfaction with clearance and redevelopment as the means for solving urban problems. Their criticisms set the stage for what has been referred to as "...the community action approach to neighbourhood planning" (Rohe and Gates, 1985: 32). Community action is interpreted here to mean neighbourhood participation in the planning process, by which residents defined the problems in their areas and proposed solutions to them. Urban sociologists criticized the neglect, by planners, of the social and spatial dynamics at work in neighbourhoods. They argued that socially mixed neighbourhoods foster stronger social relationships, personal support networks and informal kinship ties, and that through their social diversity they facilitate integration into the larger society. These aspects of neighbourhood life were being destroyed by clearance schemes. It was further argued that neighbourhood planning could and should support such social functions, rather than emphasizing the plan as a physical design document. Calls were made for less design-oriented planning and more concern for the social context of planning, as well as greater citizen participation in neighbourhood planning (Greer, 1956; Jacobs, 1961; Keller, 1968; Suttles, 1968; Warren and Warren, 1977; Ahlbrandt and Cunningham, 1979; Fischer, 1982).

In addition to the social costs of redevelopment, it became clear that those forced to relocate, due to demolition, bore the heaviest financial costs. They faced substantial increases in the proportion of their income spent on housing, the market value of their homes was significantly lower than the price they had to pay to live in comparable housing elsewhere and, even if they were not forced to move, the uncertainty and rumour surrounding the future of their neighbourhood lead to falling property values and loss of rental income. Spillover effects in adjacent neighbourhoods, such as traffic disruption, increased competition for housing and so on, might even set in motion a process of deterioration in previously stable areas (Henig, 1982).

Political activists responded to urban problems, as part of the wider issue of citizen participation in government, by calling for more decentralized decision making, including the establishment of neighbourhood planning programs. In the United States, poor neighbourhoods, encouraged by the general climate being created by the civil rights movement, began to oppose clearance schemes and lobbied for measures to upgrade the condition of their areas, as an alternative to demolition (Stone, 1976; Abbott, 1981). Neighbourhood residents and activists alike began to question the planners' claims to expertise in choosing the proper path of urban development. The political philosophy of some of the political activists of the 1960s, such as Alinsky (1946 and 1971), established principles that influenced the development of neighbourhood planning. These were, first, an emphasis on the development of local organizations, based in the community, where residents share cultural characteristics and problems; second, a belief in the importance of self-help, signifying that success is most meaningful when achieved through one's own efforts; and, third, the idea that the process of achieving one's objectives is as essential as the end result. The implication of these ideas for neighbourhood planning was that local people must become involved in the process of developing plans for their areas, rather than simply reacting to planners' proposals, and that they must become leaders of organizations operating to improve local conditions (Rohe and Gates, 1985).

Within the planning profession, theorists contributed to the development of neighbourhood planning, through their criticism of its emphasis on physical development and the production of the plan as a document, at the expense of implementation and monitoring of performance. In addition, they criticized the assumptions that a single public interest can be defined, and that planners have the ability to understand the public interest and can produce plans that satisfy that public interest (Altshuler, 1965; Chapin, 1965; Arnstein, 1969; Friedmann, 1971; Branch, 1972). Instead, it was argued that we live in a pluralistic society, characterized by a diversity of interests that should be recognized by planners and incorporated into the planning process. Alternative approaches were popularized, notably advocacy planning, a technique by which planners would be expected to work for various interest groups, including neighbourhood organizations, in a decentralized approach to planning (Davidoff, 1965). In the late 1960s and early 1970s, then, neighbourhood planning was in the midst of a transition toward a conscious effort to address the wishes of the residents, rather than satisfying the technical needs of the planners (Richman, 1979). This was accompanied by a new emphasis on the processes of neighbourhood planning in the theoretical literature, as well as in planning practice. In some cases, although not all, residents became more active participants in neighbourhood planning and the neighbourhood became increasingly important as a vehicle for program development in urban policy (Kaptur, 1978) and for inner-city revitalization (Goering, 1979; Mayer, 1984).

2.4.2 Canada

In contrast to the United States, Canadian cities have not experienced widespread decline in their core areas. This is explained by the relative compactness of Canadian cities, associated with greater reliance on public transportation and restraint in expressway construction, as well as the high concentration of employment and retail activities in their central areas. The relative absence of racial and criminal deterrents to middle-class residents was another important factor (Goldberg and Mercer, 1986).

Nonetheless, Canadian neighbourhood planning also underwent a period of reform in the late 1960s and early 1970s. Two interrelated themes characterized the developments of this period: first, there was growing recognition that the neighbourhood was a legitimate scale for planning; second, there was a drive for greater community participation in neighbourhood planning. Rather than simply providing background information for the formulation of local plans, some residents, in some cities, sought to participate directly in the production of plans and even in changing the philosophy of planning in their cities (Keeble, 1986). As in the United States, there was a shift of emphasis from the technical preparation of the plan document to the processes of neighbourhood planning, both in the theoretical planning literature and in planning practice.

The stimulus for reform came from popular opposition to redevelopment that was destroying long-established inner-city neighbourhoods. Conflict was particularly associated with three types of redevelopment: first, clearance projects undertaken as part of the government's urban renewal program; second, urban expressway construction; and, third, high-rise apartment and office construction by private development companies. Each of these is considered in turn, beginning with the the urban renewal program.

In the 1950s and 1960s, politicians and planners turned to urban renewal, chiefly in the form of clearance and redevelopment, as a means by which the living conditions of families in unsafe or unhealthy houses could be improved. A large part of the country's housing stock had been considered substandard since the 1930s, when calls for improvement first began. Then, beginning in 1944, a series of amendments to the National Housing Act was designed to facilitate the clearance of blighted or substandard areas and the redevelopment of the cleared sites with uses that conformed to a city's comprehensive plan. Displaced families were to be rehoused in new rental housing projects, either on the cleared sites or elsewhere in the city (Smith, 1990). In 1964, the urban renewal legislation was extended to permit and encourage the renewal of declining business districts by private developers. Development corporations were able to enter into favourable land deals with municipal councils and to undertake the construction of buildings in urban renewal areas. At the same time, municipal governments were encouraged to plan for residential rehabilitation and conservation, although clearance and redevelopment continued to be by far the most popular forms of renewal carried out (Axworthy, 1972).

Urban renewal produced a number of problems for the residents of areas targeted for clearance schemes. It entailed expropriation of property, and hence the forced eviction and relocation of lower-income families. As a consequence, well-established neighbourhood social networks were destroyed, and severe psychological hardship was imposed on displaced residents (Lipman, 1968; Lorimer, 1972; Robertson, 1973). In addition, inflation pushed house prices higher through the late 1960s, causing the cost of alternative accommodation to be prohibitive for many displaced residents (Morton and Kumove, 1967). At the same time, the low-cost housing stock was being eroded due to the clearance policy, contributing to the problem of housing supply. Most prospective renewal areas contained high proportions of owner-occupiers, who were being forced to leave. In some cases these people became renters in public housing projects because of an absence of affordable alternative housing.

Some of the best-documented cases of citizen protest were sparked by the urban renewal program. In Toronto's Trefann Court, Don-Vale, Don-Mount and Kensington neighbourhoods and in Vancouver's Strathcona district, resident protests against redevelopment plans resulted in the creation of special planning committees, comprised of representatives from the neighbourhoods, from businessmen's associations and elected politicians. City officials worked with the committees to develop detailed alternatives to redevelopment. The residents' protests led to plans that aimed to preserve and strengthen the areas through rehabilitation of the existing housing stock. In addition, for the first time, the plans included concern for the social characteristics of the residents and provisions for resident involvement in deciding the future design of their areas (Lorimer, 1970; Fraser, 1972; Sewell, 1972; Richardson, 1972; Wong, 1978). In practice, the involvement of the residents in the planning process was only partially successful. In some cases, the residents' committees were called upon only when it was convenient for local aldermen. In addition, not every neighbourhood was sucessful in opposing redevelopment; for example, the Rose-Blanchard district of Victoria was extensively redeveloped despite protests by its residents (Robertson, 1973).

Proposals to construct urban expressway systems also acted as stimuli for land use conflicts in Canadian cities (Leo, 1977). At various times, most major cities produced master plans for the construction of freeways designed to link the suburbs to the city centre. By no means all of them were built, in large part because they usually required the demolition of hundreds of houses and the displacement of their inhabitants. Local businesses were required to move as well, to less suitable and more expensive buildings; in extreme cases, firms were likely to be forced out of business. Not surprisingly then, popular opposition soon became intense. In Toronto, for example, residents were able to organize successfully and stop the construction of the Spadina expressway through their neighbourhoods (Lewinberg, 1986). Similarly, plans to connect Vancouver's suburbs to the city centre via new expressways and bridges caused great controversy, forcing the abandonment of some routes and the realignment of others (Vancouver Urban Research Group, 1972).

The third source of revedelopment pressure was the large private development corporations. Since the end of World War Two, in every Canadian city, such companies were accumulating land in neighbourhoods surrounding the central business districts and on sites located adjacent to the proposed expressways, for the construction of high-rise apartments and offices. Homeowners' and tenants' associations were formed in all of Canada's major cities to fight for the preservation of single-family housing in the face of apartment redevelopment. In Montreal's Milton Park neighbourhood, for example, the residents fought against the redevelopment plans of a succession of developers and they were successful in establishing cooperative housing groups in existing houses in the area (Goliger, 1982; Hellman, 1987). In the South of St James Town area of Toronto, residents organized, with some degree of success, to fight apartment development proposals put forward by the Meridian Corporation (Fraser, 1972). In some cases, even residents on individual streets mobilized to fight redevelopment proposals; for example, the residents on Marlborough Avenue in Toronto were able to force the Marathon Realty Corporation to modify its plans for a high-rise apartment and commercial complex that would have led to serious traffic problems on the street (Granatstein, 1971). More often than not, however, the development companies were allowed a free hand. The St James area of Toronto, for example, was extensively redeveloped in the late 1960s when one of the largest high-rise apartment complexes in Canada was built with relatively little outcry (Whitzman, 1989).

Increasingly, in the late 1960s and early 1970s, the attitude grew among the general public, as well as the residents of inner-city neighbourhoods, that their city councils were being controlled by the large development corporations. In some cases, the activism generated by neighbourhood planning issues became part of a wider public demand for reform of the civic government. In Toronto and Vancouver, between 1969 and 1972, a number of reform-minded aldermen were elected on the strength of their support for citizen participation and their opposition to development-minded local governments. However, the reform councils they led were able to survive for only a few years, before being replaced by more conservative regimes (Goldrick, 1982; Freeman, 1982). Indeed, most cities did not have such popular reform movements.

In 1968, the federal government responded to the climate of dissatisfaction with all forms of redevelopment by creating a task force to examine housing and urban development in Canada. Headed by Paul Hellyer, the minister responsible for urban affairs, the task force travelled across the country, visiting urban renewal and public housing projects and speaking to residents of inner-city neighbourhoods threatened by redevelopment. Evidence of numerous hardships was revealed, along with the perception, held by residents, that they were powerless and left out of any say in the future of their homes or neighbourhoods. In 1969, the Hellyer Commission recommended a ban on comprehensive redevelopment projects and emphasized the need for rehabilitation of the housing stock as an alternative to demolition (Canada, 1969). These findings helped the early citizens' groups to press their demands for rehabilitation of their neighbourhoods, although it was not until 1973 that the commission's recommendations were finally adopted. In that year the National Housing Act was revised to introduce two new programs: the Residential Rehabilitation Assistance Program (RRAP) and the Neighbourhood Improvement Program (NIP). RRAP was designed to assist individuals to renovate their houses, by providing federal government subsidies, as well as provincial and municipal loans. NIP made provision for federal grants to municipalities, for the rehabilitation of declining neighbourhoods, including street and sewer improvements and the like. In addition, neighbourhood participation was a condition of NIP approval. As a result of the Hellyer report and the establishment of the NIP and RRAP programs, rehabilitation became the only form of renewal that would qualify for federal assistance.

The efforts of residents in opposing redevelopment had helped to convince the federal government of the need for participatory neighbourhood planning, oriented toward rehabilitation. In its turn, the availability of NIP was a stimulus to people in cities across Canada to organize and to request inclusion in the program. Even the residents of areas not included in NIP projects were more likely to organize to demand plans for their neighbourhoods, and the success of NIP sensitized municipal and provincial governments to the need for participatory neighbourhood planning. As the 1970s progressed, participation in planning, at the neighbourhood scale, came more to be expected than regarded as the exception and neighbourhood preservation became the basis for inner-city neighbourhood planning policy. In Ottawa, for example, citizen planning committees were extremely active in elaborating goals, devising ways to achieve these goals and working for their adoption (Andrew and Milroy, 1986).

2.4.3 Edmonton

In Edmonton, from the mid 1960s, citizens' groups began to try to gain a larger role in the development of neighbourhood planning policies. Local neighbourhood organizations were formed, as they were in other cities across Canada and in the United States (Masson, 1985; Lightbody, 1983). Transportation planning was the initial focus for citizen activism. The Metropolitan Edmonton Transportation Study (METS), a technical planning study released in 1964, proposed a massive construction program, including five new freeways into the city centre, six new bridges and a downtown freeway loop. Public hearings in 1971, required under the Alberta Planning Act, proved to be the forum in which citizen opposition became clear. Twenty-two groups or individuals spoke against the METS proposals. The citizen reaction forced a rewriting of the transportation chapter of the general plan bylaw, during the course of which fifty-seven groups and individuals were heard at three days of public hearings. There was particularly strong opposition to the construction of a freeway along the McKinnon Ravine and the project was halted after construction had started (Leo, 1977; Lightbody, 1983).

Citizen opposition to freeway development did not develop into a civic reform movement in Edmonton, as it had in Toronto and Vancouver, although a modest group, known as the Urban Reform Group of Edmonton (URGE), was established in 1974. Among its aims, URGE was committed to greater citizen participation in planning. At the peak of its popularity, in 1980, the organization managed to have four of its candidates elected to sit on the city council. While URGE has never been able to capture a majority of seats on the council, its representatives have helped to promote citizen participation, rehabilitation and preservation in neighbourhood planning.

Prior to these developments, however, the system of citizen participation operating in Edmonton was hollow and ineffective (Snider, 1972). Commonly it was restricted to "voice", in the form of confrontation, since residents were not formally involved in the formulation of plans. As a result, some neighbourhoods, when faced with threatening proposals, participated by protesting against them. A well-developed community league system proved useful as a base upon which neighbourhood protest movements could be built. Residents could be mobilized around the community league, whose members are local residents and have a strong stake in any local planning issue. Moreover, community league organizers are often equipped with the skills needed to produce alternatives to planning department proposals. This was demonstrated by a dispute between the City of Edmonton and residents of three neighbourhoods in the valley of the North Saskatchewan River, where it flows through the centre of the city. A policy designed to remove all houses and other buildings from the river valley and replace them with parkland initiated one of Edmonton's most impressive displays of citizen protest against a planning policy. A protest organization, known as the Society for the Preservation of the River Valley, was formed. It was drawn from representatives of the community leagues in the affected areas and, after years of bitter dispute, succeeded in overturning the established policy (McGibbon, 1984). The survival of the neighbourhoods was thus ensured, and they are now being restored through a mix of infill redevelopment and rehabilitation.

In general, however, planners were not compelled to consider any policy or design ideas that residents might have. For every well-publicized success, such as the METS and river valley cases, there were several failures. For example, in the early 1970s, the Lynwood community was faced with the prospect of having a large apartment building constructed in the area. Some residents, particularly those living close to the proposed site of construction, formed an action committee to fight the proposal. They presented professional opinions, provided by sympathetic lawyers, architects and the like, as well as letters of opposition and a petition with 1100 names, to city council. Their efforts failed. The developer obtained a rezoning and the apartment complex was built.

In another case, in the Spruce Avenue area, residents became angry about what they perceived as collusion between a developer, a real-estate agency and city planners, over the preparation of plans for a shopping mall. The residents organized meetings to inform others about the systematic purchase of houses by the developer. Nonetheless, the developer was able to convince the majority of residents that their only choices were to sell to him or to face expropriation by the city. Most residents chose to sell (Parnell, 1974).

Despite such setbacks, through the 1970s there seems to have been an increasing acceptance of citizen participation in planning and of the value of neighbourhood plans for inner-city neighbourhoods. In 1978, for example, a conference on neighbourhood planning in Edmonton recommended that the principle of formal citizen participation in the planning process should be accepted, from the initial stages to the final product. The right of residents to be able to accept or reject new proposals for their neighbourhoods was recommended as well, and it was recognized that community organizations could be responsible for identifying needs and priorities in their areas.

At the same time, Edmonton was in the midst of an economic boom that was producing a great deal of development pressure in inner-city neighbourhoods, resulting in losses of affordable family housing and threats to community life-styles. Organized residents' groups became active in a number of neighbourhoods, usually with the aim of initiating new planning policies for their home communities (Jackson, 1977). In some cases, such as Canora, Norwood, Richie and Calder, the residents successfully lobbied to have their neighbourhoods included in the NIP program. Other areas that were not given NIP status, including those chosen for this study, continued to press for plans that would preserve their family housing. Then, in two comprehensive studies of older neighbourhoods, the City of Edmonton admitted the need to protect the housing stock in areas not eligible for assistance under the Neighbourhood Improvement Program (City of Edmonton, 1975 and 1977). In its new general municipal plan of 1981 city council adopted a policy of trying to maintain a stable environment for affordable, family housing in the inner city (City of Edmonton, 1981). Special neighbourhood planning teams were established and the whole movement was facilitated by the revised Alberta Planning Act of 1977, which introduced the area redevelopment plan as an important new component of the Alberta planning system. In 1982, in a published response to a special task-force on neighbourhood planning that had been set up by the mayor, the planning department stated that it had become common practice to consult with and inform residents in older neighbourhoods about planning or rezoning proposals (Edmonton, 1982). The setting was therefore right for effective neighbourhood planning.

2.7 Inner-City Residential Revitalization

Inner-city residential revitalization is the second of the theoretical concepts that are of importance to this study. While the phenomenon of inner-city revitalization has received a great deal of attention, there has been some confusion over its definition and terminology. There has been a tendency to use terms like revitalization, regeneration, renewal, redevelopment, rehabilitation, and gentrification in overlapping ways, and even interchangeably. This has tended to obscure some important differences in the processes at work in inner-city neighbourhoods. In the context of this research, revitalization is used as an umbrella term, denoting various forms of physical and social improvement. Above all, it should not be confused with gentrification, which involves the movement of higher-status "gentry" into areas that had previously been deteriorating, both physically and socially (Glass, 1963). The perception that revitalization is the sole domain of the middle and upper classes is inaccurate (Palen and London, 1984).

Clay (1979, 1980) suggests that neighbourhood revitalization involves the two distinct processes of incumbent upgrading and gentrification. In areas undergoing incumbent upgrading, long-time residents, with moderate incomes, invest in quite small-scale renovation of their homes. Such areas are often characterized by strong neighbourhood organizations, a high percentage of owner-occupiers (usually more than 50%), and a strong sense of community identification. The housing stock is usually in fair condition, although some deterioration may have occurred, and most of the families still have children in the home. Another situation where incumbent upgrading may occur is in higher-status neighbourhoods where the housing stock is outmoded and so requires modernization. This is the case, for example, in the Glenora and Windsor Park districts of Edmonton. In contrast, gentrification is associated with the migration of young, middle-class professionals into older inner-city neighbourhoods. These people are usually characterized by higher-than-average incomes and, because both husband and wife may be involved in professional occupations, there are often no children. They are thought to be attracted to areas of formerly desirable, high-quality housing stock that is in a state of decline, although this is not always the case. In some cities, gentrification has occurred in neighbourhoods where the housing stock is modest in size and quality. In these cases, the gentrifiers are attracted by the location and character of the areas, particularly if they are close to the CBD, or at some interesting location such as a high elevation, a water body, a park, or a site of historic interest. Examples are Rossdale in Edmonton and Don Vale in Toronto. The incumbent residents, who are of a lower socio-economic status, and many of whom are renters, are displaced. Displacement is not confined to cases in which tenants are forced out due to pressure from landlords. Change in the structure of the housing supply may also lead to an out-movement of renters. For example, a tenant may move out of a suite in a converted house and the owner may then decide to reconvert the house to single-family use. In such a case, there has been no forced displacement but the supply of affordable rental housing has been reduced. In other cases, however, a house containing a suite may be sold and the tenant may be forced to leave by the new owner, resulting in forced displacement. In some cases, the sharp socio-economic distinctions between the newcomers and the long-time residents may lead to ill-feeling and conflict (Auger, 1979).

Until recently, much of the literature has been grounded in the American experience of revitalization, particularly in very large metropolitan areas, and has focused on gentrification at the expense of other kinds of inner-city revitalization processes. Some researchers have been concerned to identify neighbourhoods experiencing gentrification, or to describe the people involved in the process, as well as the kinds of renovations they carry out on their houses (Clay, 1979, 1980; Laska and Spain, 1980; Holcomb and Beauregard, 1981; Gale, 1979, 1980; Ley, 1981; London and Palen, 1982). Others have attempted to try to determine the extent of revitalization throughout Canada and the United States, concluding that signs of revitalization are appearing in many cities, but that the phenomenon is not as widespread as initially believed (Black, 1975; Ley, 1985; Clay; 1979; Palen and London, 1984). Selected cities have been the subject of case-studies of revitalization (Henig, 1980; Hodge, 1981; Spain, 1981). The benefits and costs of revitalization have also received much attention, with particular attention to the problem of displacement (Greer and Greer, 1980; Levy, 1980; Cincin-Sain, 1980; Mayer, 1984).

Much has been written in the attempt to explain why inner-city neighbourhood revitalization is occurring. Some regard gentrification as a reflection of broad changes in society, such as the tendency towards smaller households and the increasing role of women in the workforce, as well as the growth in importance of the tertiary and quaternary sectors of the economy (Ley, 1986b; London, Lee and Lipton, 1986). Others have focused on related lifestyle changes, such as the desire to live in a cosmopolitan, inner-city environment, changing family lifecycle, or the enjoyment derived from renovating a house, rather than purely economic or utilitarian reasons (Berry, 1980; Goetz and Colton, 1980; Holcomb, 1984; Evenden, 1988). Some researchers have attempted to describe patterns of neighbourhood growth, decline and renewal in terms of models of neighbourhood development based on neoclassical economics (Smith and McCann, 1981, among others). Such research has been valuable in identifying, empirically, stages in the development of residential areas, but has not been able to examine the role of state intervention, in the form of neighbourhood planning, in encouraging neighbourhood revitalization. Recently, neo-marxist interpretations have focused on the role of financial institutions such as banks and development companies, to try to explain revitalization (Smith, 1979a; Smith, 1986). Central to such explanations is the power of financial institutions over individual property owners in the housing market. The role of individual preferences is downplayed, as is the possibility for collective mobilization by residents, in response to controversial housing policies.

More recently, however, a body of literature devoted to research in neighbourhoods in smaller Canadian cities has begun to accumulate. This work is focusing on neighbourhoods that are neither gentrified nor seriously run-down in appearance. Instead, there is evidence that a more modest and inconspicuous form of residential upgrading is being carried out in neighbourhoods which cannot be described as undergoing either gentrification or incumbent upgrading (Bunting and Phipps, 1988). Sometimes, too, it seems that various forms of residential revitalization are occurring in combination (Millward and Davis, 1986). In fact, a simple differentiation between gentrification and incumbent upgrading does not fully describe the range of upgrading processes that are in operation in Canadian cities. In a recent study of Halifax, for example, Millward (1988) developed a classification of inner-city upgrading processes that allowed neighbourhoods to be grouped according to the relative extent of both physical and social upgrading. He concluded that gentrification is not the prevalent process of inner-city upgrading in Halifax and that various gradations and combinations of social and physical upgrading are occurring in close proximity. This is a valuable insight, which contributes to a more complete understanding of inner-city revitalization processes in Canada, but Millward did not specifically consider the role that neighbourhood planning may play in helping to initiate revitalization. None of the past research has addressed this link between neighbourhood planning and revitalization.

Existing evaluations of revitalizating areas have tended to take two forms. First, there are evaluations of revitalization projects conducted under the Neighbourhood Improvement Program (Sicoli, 1984; Filion, 1988) and the Residential Rehabilitation Assistance Program (CMHC, 1978); but, as explained in chapter 1, this study was designed to focus on neighbourhoods that were not eligible for such programs. Second, there are evaluations of the success of physical design principles in newly built inner-city housing projects (Vischer, 1984; Simon and Wekerle, 1986). Again, these are not pertinent to the present study which focuses rather on changes in the housing stock, renovation and social change in older inner-city neighbourhoods, especially in situations where resident resistance to redevelopment was the stimulus for the implementation of neighbourhood plans.

In both the academic and professional planning literature, as well as in planning practice, the emphasis has progressed from a discussion of the need for participation in neighbourhood planning to the form such participation should take, as well as advising residents how to organize and analysing the formation and operation of neighbourhood organizations (Arnstein, 1969; Lorimer, 1970; Axworthy, 1972; Fraser, 1972; Richardson, 1972; Sewell, 1972; Morris and Hess, 1975). However, none of the case studies of neighbourhood mobilization has specifically examined the consequences of neighbourhood plans that were implemented in response to the demands of their residents. In particular, no attempt has been made to determine empirically if the neighbourhoods have been revitalized as expected. It is this gap in the research literature that is addressed in the present study.

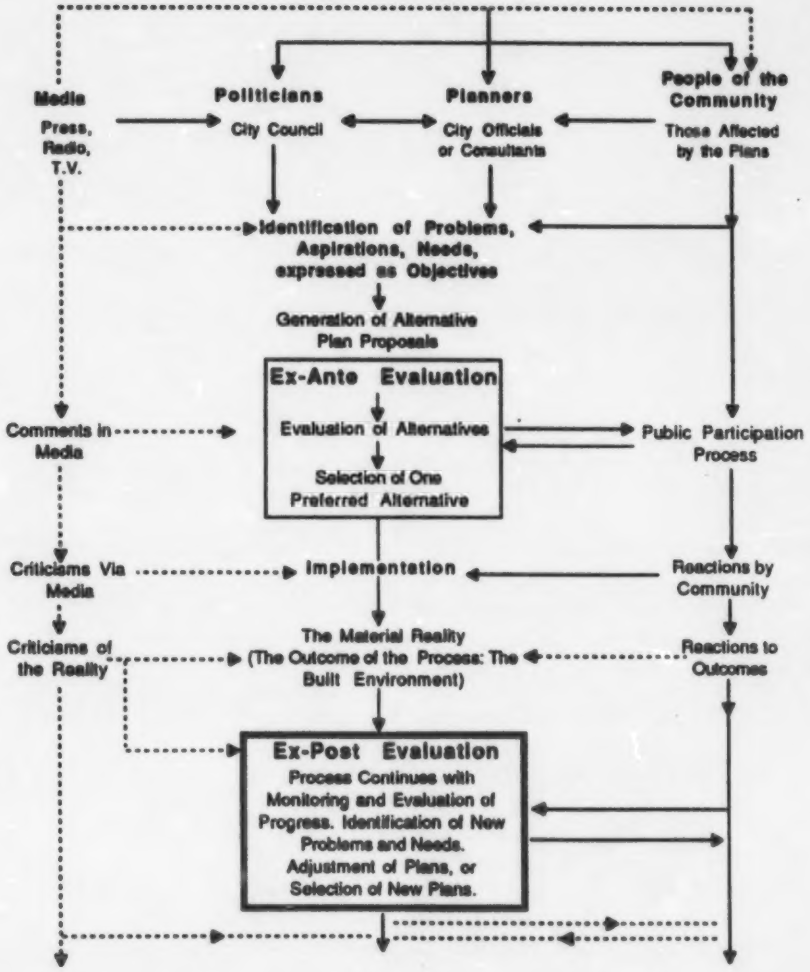
3. Methodology and Research Plan

3.1 Evaluation as an Urban Planning Concept

In the past, there was a tendency among urban planners to concentrate on producing plan documents, with little interest in the actual performance or consequences of the plans. Planning theorists, if not all practicing planners, now recognize that the assumptions upon which plans are based may later prove to be invalid or inaccurate. Because of changes in social and economic conditions, or in the values prevalent in society, or in the political climate, plans require to be subjected to continuous evaluation and review (Gillis, 1973; Haynes, 1974; Detomasi, 1979; McAllister, 1980). Before considering the implications of this principle for the research design, however, it is necessary to clarify a point of semantic confusion in the urban planning literature.

The term evaluation tends to be used in two distinct ways. Among urban planners and some planning theorists (Lichfield, Kettle and Whitbread, 1975; Bracken, 1981), it is most often used to describe the critical examination and comparison of the possible consequences of alternative plans or policies, and the selection of one of these alternatives for implementation. Among policy analysts, on the other hand, and more specifically among those involved in program evaluation and social impact assessment, evaluation refers to critical examination of the effectiveness and consequences of a policy or program (Rutman, 1980; Bowles, 1981). This corresponds, in urban planning terms, to what is commonly known as monitoring (Reade, 1980, 1983, 1987). If there appears to be difficulty in distinguishing between monitoring and evaluation, it is because the two are inseparable in practice. Monitoring provides information about the performance of a plan or policy, which is then critically evaluated and, if necessary, amended or replaced.

McConnell (1981) provides a convenient organizational diagram which illustrates the position of monitoring and evaluation among the various components of policy analysis and the various stages of the planning process (Figure 3). McConnell's model begins by identifying those interest groups that may influence the planning process, including the people in communities affected by plans. Problems, aspirations and needs, expressed as goals and objectives, are identified, followed by the generation of alternative proposals designed to remedy problems and satisfy needs and aspirations. These alternatives must next be "evaluated", which means that their probable impacts, both positive and negative, are measured and compared, and the most favourable course of action chosen. That becomes the plan which is then implemented (Seni, 1978; Booth and Jaffe, 1978; Detomasi, 1979), leading to a new "material reality", the urban environment that has been created. The planning process continues with monitoring and evaluation of the impacts of plans, including assessments of the extent to which goals were achieved, and the identification of new problems and unanticipated side-effects. The useful label "ex-post evaluation" is sometimes applied to these planning tasks, to distinguish them from the evaluation of alternatives stage, or "ex-ante evaluation" (Seni, 1978). In urban planning terms, then, the research for this study was conceived as an exercise in ex-post evaluation, though not in the narrow practical sense. That is,


Media
Press, Radio, T.V.
Politicians
City Council
Planners
City Officials or Consultants
People of the Community
Those Affected by the Plans
Identification of Problems, Aspirations, Needs, expressed as Objectives
Generation of Alternative Plan Proposals
Ex-Ante Evaluation
Evaluation of Alternatives
Selection of One Preferred Alternative
Comments in Media
Public Participation Process
Criticisms Via Media
Implementation
Reactions by Community
Criticisms of the Reality
The Material Reality (The Outcome of the Process: The Built Environment)
Reactions to Outcomes
Ex-Post Evaluation
Process Continues with Monitoring and Evaluation of Progress. Identification of New Problems and Needs. Adjustment of Plans, or Selection of New Plans.

Adapted from McConnell (1981)

Figure 3. Evaluation in the Cyclic Planning Process

the purpose of the research is to add to the general understanding of the effectiveness of neighbourhood planning, not to recommend changes to the case study plans.

3.2 The Need for Ex-Post Evaluation Research

Research into the effects of plans has not been popular among practising planners. One reason may be the major methodological difficulty known generally as the attribution problem. More specifically, given the context of the present research, the problem is one of establishing the extent to which physical patterns of land use and built environment can be attributed to planning policies rather than to broader social and economic forces. In addition, because planning is a long and shifting process, often involving overlapping or conflicting policies, it may be difficult to determine which policy caused which effect. On top of all that, the difficulties involved in evaluating past plans or policies may be compounded by ambiguous historical records and the selective memories of the participants (Sillince, 1986).

Despite such objections, however, it is possible to construct a strong argument in support of ex-post evaluation research. Assuming that government should be open and accountable, the justification for government activity, including urban planning, must always be in terms of its effects. Even though it may be difficult to discover what those effects actually are, it is necessary to try to determine what difference is made by plans and policies. It can also be argued that this responsibility should not be left to planners alone. Planners are sometimes characterized as being technocratic in their approach; that is, they emphasize the importance of "technique", and tend to identify with other experts and with the administrators they advise (Ellul, 1964; Barrett, 1979). Similarly, the approach taken to ex-post evaluation is often technocratic, in the sense that those who write about the effects of planning tend to identify with the planners or administrators whose actions they are studying. A more useful alternative may be the social science approach, in which the sympathies of the researchers are just as likely to be with the public, although, in principle, their analyses are intended to be impartial.

Popper's (1945) views about public policy making may be used to exemplify the social science approach. He states that monitoring of policy is to the social sciences what laboratory experiment is to the natural sciences. When any government agency adopts any given policy, or makes any specific decision, it is, in effect, hypothesizing that the program or policy will have specific effects. To monitor the program, and thus to investigate the extent to which it does in fact have the effects intended, is to harness the governmental process to the production of knowledge. Effective political action, in Popper's view, not only depends on knowledge of cause and effect, it also produces such knowledge (Reade, 1983).

According to Popper, all government policies and all executive and administrative decisions involve empirical predictions. For example, "if we do X, Y will follow; on the other hand, if we want to achieve B we must do A... A policy is a hypothesis which has to be corrected in light of experience... The implementation of every policy needs to be tested" (Magee, 1973: 75-77). The implication of this model is that intelligent policy making is literally impossible unless it is based on knowledge of its own past consequences. In Wyatt's (1989: 5) words, "smart learning always utilizes feedback. Only by monitoring the results of past actions can we learn how to distinguish between the advisable and the inadvisable things to do".

It should also be noted that while the knowledge produced by such policy research, and by the social sciences generally, is less accurate than that produced by the natural sciences, this does not make it less useful. Approximate knowledge of how to achieve improvements in human welfare is much more useful than even the most precise understanding of how to achieve outcomes which do little to improve human welfare (Reade, 1987). This suggests that it is possible to gain useful knowledge from an exercise in plan evaluation, in spite of the difficulties of establishing exact causation.

3.3 Evaluation Methods

As an empirical concept, ex-post evaluation has had its greatest application in fields such as sociology and social planning. In addition to the urban planning literature, then, it was necessary to look to published work on social impact assessment and social program evaluation for practical guidance on research methods. In fact, all these fields hold common views about the requirements of ex-post evaluations. These requirements have been summarized as follows (Wedgwood-Oppenheim, 1976):

1. Evaluation should measure the extent to which goals were achieved. In its urban planning application, this means gauging the extent to which plans were successful in achieving their objectives and in guiding change in the desired directions.
2. Any unintended side-effects of plans, policies, or programs should be measured as well. In the context of the present study, this means

measuring the unforeseen consequences that conflict with the aims of the residents.

3. Evaluation involves analysis of the problems and opportunities that arise from existing plans and programs, as well as the possibility of having to create new ones in response to current conditions.

4. A review of past policies and their impact on current and future situations is an essential component of ex-post plan evaluation.

Within the general framework provided by these universal requirements, there is no single agreed-upon approach to ex-post evaluation, no single set of evaluative criteria that can be employed, and no one method that is generally applicable. The choice of evaluative procedures tends to vary according to the circumstances of individual cases, though several basic approaches are commonly recognized. Carley (1980), for example, describes three of them, only one of which stood out as being clearly appropriate in the present context. The first of Carley's approaches is characterized by the application of rigorous scientific methods to the evaluation of programs or policies, usually by means of controlled experiments. This is an idea borrowed from the natural sciences, in which an intervention of some kind is tested by comparison with a control group on which no intervention is used. In medicine, for example, a group of patients may be given either a drug or a placebo. If both yield the same result, the drug has not had the desired effect. The use of controlled experiments is sometimes advocated as a way of addressing the problem of attribution in ex-post evaluation (Rutman, 1980). In urban planning research, however, it is difficult, if not impossible, to set up appropriate controls. One might study residents within a plan area and those outside it, to try to determine the effects of housing improvement policies. But urban neighbourhoods usually differ in some critical respects; that is why one is a plan area and another is not (Sillince, 1986). Moreover, most plans take a long time to implement and the consequences for the urban landscape may not become evident for many years. It is difficult to construct a control experiment under those conditions, since the control area may change considerably in character before any comparison with the plan area can be made. In addition to the time constraint, the cost of running a long-term control experiment is usually prohibitive. For all these reasons, use of control experiments was rejected in the present research.

The second approach identified by Carley attempts to apply "principles of cost utility" to the evaluation of government programs. This usually means evaluating the fiscal productivity or performance of government departments, using techniques such as cost-benefit analysis. This approach is not appropriate for the present purposes.

The third approach to ex-post evaluation is referred to by Carley as performance measurement. Its methods correspond closely to those of the goal attainment approach to program evaluation advocated by Rossi and Wright (1979). The central purpose in both cases is to determine how well desired courses of action are being followed, and how completely plan or policy objectives are being fulfilled, while also identifying any unintended consequences, particularly those having negative effects.

There are three basic steps in the performance measurement or goal attainment approach: first, identify the goals and objectives of the plans to be evaluated; second, select appropriate indicators of goal achievement and compile an appropriate data base; and, third, measure the plan outcomes (Rossi and Wright, 1979; Poister, 1983). From a methodological perspective the second of these three steps is most important. Again, Carley (1980) is a valuable guide, since he suggests a number of criteria for the selection of performance measures or indicators of goal attainment. First, they should be measurable and quantifiable; second, they should be in line with the goals and objectives of the plan or policy being evaluated, which means that the chosen indicators must be the appropriate performance measures for each objective; third, the indicators should be understandable; and, fourth, the time and cost of data collection must be reasonable.

One favoured method of analysis in the goal attainment approach is to conduct before-and-after-plan comparisons based on time-series data (Carmon and Hill, 1988). This method, which is known as the "reflexive control" approach (Rossi and Freeman, 1982 and 1989), is particularly useful when control experiments are inappropriate. In addition, important knowledge about the effectiveness of plans can be obtained from neighbourhood representatives, planners, and the residents of the plan areas (Alterman, 1988). Such information can be assembled from interviews and surveys, and is referred to by Rossi and Freeman as "shadow controls".

One difficulty that must be addressed when reflexive and shadow controls are used is to determine the influence of interfering events on trends among the indicators. Changes may be attributable, for example, to broader trends in the local economy, rather than to the influence of a plan. It is necessary, therefore, to interpret trends among the indicators in light of changes in the local economic context.

Given the focus of the present study, the goal-attainment approach was considered to be the most appropriate choice. Before-and-after-plan comparisons of trends in the data were carried out and a profile of economic trends in Edmonton throughout the period of the study was constructed, against which the indicators were compared. This allowed the problem of attribution to be addressed in a reasonably effective manner, bearing in mind that planners' efforts to be comprehensive are a major source of difficulty in the evaluation procedure. The point here is that plans are commonly designed to serve a number of different ends. But then, having attempted to do too much, and subsequently realizing that they have not achieved their objectives, planners are unable to discover why They are faced with a multiplicity of effects, but no means of ascribing causation. While it may be conceded that there is no completely satisfactory solution to this problem, by concentrating on specific, well-defined policies that are limited in scope, the researcher can find out at least something about their effects (Reade, 1987). The implication for the present purpose is that clearly defined, measurable planning objectives must be available, if the problem of establishing causation is to be minimized. It was, in fact, possible to extract well-defined objectives from the plans that are the subject of this research and to devise performance tests for them.

Well-defined objectives must then be linked to the most appropriate indicators of attainment. The choice of indicators, however, is constrained by the data that are available to the researcher. A great many sources and types of data can be used for the purpose of an ex-post evaluation, including various kinds of government records, reports, archival and census material, survey data, and interviews, as well as direct observation. Much of the analysis is historical and must rely on various forms of existing records. In this study, the City of Edmonton property tax assessment record and the Census of Canada proved to be the crucial sources of data from which indicators could be extracted. In addition, the construction of an "action history" is useful for developing a chronology of events, in order to establish the patterns that existed before the implementation of plan or policy. Data for such a history can be collected from archival sources, such as newspapers and public records, minutes of meetings, planning documents and the like (Johnson and Burge, 1974; Rutman, 1980). In the present instance, a variety of documentary sources was used to compile action histories for each of the neighbourhoods under study.

The difficulties inherent in designing plan evaluations can be further reduced if it is borne in mind that, under normal circumstances, planners control development, they do not initiate it (Leung, 1989). The implication here is that an analysis of planning's effects should be restricted to those matters that urban planning is empowered to do (Reade, 1982). Planning attempts to secure desired spatial and physical patterns by imposing controls over the form and location of development. In Canadian cities, as described in chapter 4, this is usually achieved by using zoning and related regulations to implement the development policies prescribed by municipal and small-area plans. This means that an evaluation must focus on the question of how well subsequent development has conformed with the original development control regulations under the various plans, and the extent to which developments that conflicted with the intent of the plans were permitted or prevented.

3.4 Research Plan

Following the procedures of the goal-attainment approach, the goals and objectives stated in each of the case-study plans were first identified. Plans produced by the neighbourhood residents' associations and the subsequent official plans were both considered, although it was found that the residents' aims were well represented in the planning department documents. The common general purpose of the four plans was to preserve and rehabilitate the areas as residential neighbourhoods. That is, their "residential character" was to be protected. Since it is difficult to measure a concept like neighbourhood character, however, it was necessary to select surrogate performance indicators that would allow abstract or directly unmeasurable goals to be translated into measurable terms (Carley, 1983; Barras and Broadbent, 1979). In turn, this required more specific objectives to be extracted from the plan documents. These helped to establish the kinds of specific research questions that needed to be asked, as well as the data that had to be assembled to answer those questions.

3.4.1 The Objectives of the Neighbourhood Plans

To begin with the Groat Estate plan, the review revealed the general planning goal to be one of conservation. Four specific objectives can be summarized from the plan document. First, to enhance the low-density housing component in the area; this was to be achieved by encouraging, where possible, the rehabilitation of houses, by replacing excessively dilapidated houses with infill development, and by preventing further erosion of the housing stock through the conversion of houses into shops or offices, or through apartment redevelopment.

Second, to provide a variety of moderately priced housing suitable for a mix of social groups, including renters, senior citizens, low-income residents and families. Third, to identify historic and architecturally significant buildings for possible designation as heritage sites. Fourth, to reinforce an existing commercial strip.

In the case of Garneau, the objectives that are most pertinent to this study reflect the desire to re-establish the importance of family oriented housing, following a period of apartment and commercial redevelopment. Five objectives were identified. First, to foster the development of family oriented housing by encouraging rehabilitation of existing houses; second, to permit medium-density, low-rise family housing, in the form of row-houses and stacked-row houses; third, to permit high-density developments (notably high-rise apartment buildings), only where they had already clustered; fourth, to permit medium-density apartment development to continue where it already existed; and, fifth, to prevent the encroachment of commercial land uses upon the residential portions of the neighbourhood, adjacent to the existing commercial strips, and to prevent the conversion of houses into shops and offices.

Like Garneau, the Oliver neighbourhood experienced a great deal of redevelopment in the 1960s and 1970s, before the area's neighbourhood plan was prepared. The plan objectives therefore focus on controlling development in an area that had already been largely redeveloped. Four objectives can be summarized. First, to permit continued, orderly, high-density high-rise development where it was already concentrated; second, to encourage lower density family oriented development, in the form of low-rise row-housing, as well as the rehabilitation of existing houses, so that a mix of age groups and household types could be accommodated; third, to restrict the conversion of houses into business premises to one portion of the neighbourhood, to prevent further erosion of the family housing stock; and, fourth, to concentrate the development of shops and offices along Jasper Avenue, the main business street.

Finally, in Riverdale, the general theme of the plan was the preservation and rehabilitation of the community as a low-density residential environment. Four objectives are relevant to this study. First, to increase the number of housing units, while maintaining the quiet, low-density character of the area. This was to be achieved by permitting the construction of duplexes, triplexes, fourplexes, and row-houses, in addition to new detached houses. Second, to encourage rehabilitation of the existing housing wherever possible. Third, to provide housing for a variety of social groups, including senior citizens and lower income families. Fourth, to ensure that a large old industrial site was eventually redeveloped for residential purposes.

3.4.2 Research Questions

On the basis of the various objectives listed above, as well as the ideas about neighbourhood revitalization presented in chapter 2, five research questions are presented which will provide structure and direction to the evaluation of all four plans:

1. Has the family housing stock been maintained since the plans took effect?
2. Is there evidence to suggest that the condition of the family housing stock improved after the plans came into effect?

3. Is there evidence to suggest that the mix of social groups was increased, or that the incumbent population was displaced, after the plans came into effect?

4. Is there any evidence of speculation in the neighbourhood housing markets after the plans came into effect?

5. Is there evidence to suggest that unwanted development has been prevented, and that issues of concern to the residents have been addressed since the plans came into effect?

3.4.3 The Indicators Selected to Answer the Research Questions

The indicators chosen as the empirical basis of the evaluation must be capable of revealing changes in those qualities that contribute directly to the residential character of the study areas. This means, most importantly, changes in housing characteristics, including the types and conditions of housing, property ownership, and population composition. The indicators should also be capable of revealing any unintended side-effects that may have been caused and, of central importance to the interpretive focus of the study, they should be capable of providing comparisons of trends in the neighbourhoods before and after the plans were approved.

3.4.3.1 Research Question One

Evaluating the effectiveness of the plans in preserving the low-density family housing stock requires indicators that permit changes in the forms of housing and the uses of existing houses to be measured. The focus is placed on detached and semi-detached dwellings, since these are usually regarded as family housing.

Changes in the nature of the family housing stock are examined using three indicators: conversion, reconversion, and redevelopment. Conversion is the physical alteration of an existing building, usually to permit a higher density of occupancy. It commonly takes the form of the modification of a single-family dwelling, most often a house, into two self-contained suites which are less likely to contain families with children. It is also possible, however, for houses to be converted into business premises, such as offices, shops, or restaurants, thereby reducing the number of houses in residential use. Conversely, reconversion is the return of the building back to its original form and use. Redevelopment refers to the demolition of an existing building and the construction of a new one in its place; most commonly in the study areas this involves the demolition of houses and their replacement with apartments. A distinction must be made, however, between apartment redevelopment and new house construction. In some cases, individual houses may be demolished and replaced with new houses of similar sizes and styles that blend well with their surroundings. This type of redevelopment is referred to in this study as infilling. In other cases, groups of single detached houses may be demolished and replaced with row-houses, town-houses and the like. While this is redevelopment, it is designed to add to the low-density housing stock.

Using these indicators, it is possible to determine how many houses have been lost to conversion and how many gained through reconversion (or the conversion of single dwellings into two or more family oriented units). On one hand, if conversion of houses into suites or business premises has continued since the plans were approved, it may indicate that they have failed to protect the low-density family residential character of the areas. The one major qualification concerns the Oliver neighbourhood, where business conversions were permitted in a designated area, in recognition of a process that was already well advanced when the plan was introduced. On the other hand, evidence that reconversion to single-family use became widespread after the plans were approved may indicate that the plans have helped to promote low-density family housing. Infilling or new row-house construction may similarly indicate that the family housing supply is being maintained, and perhaps even expanded. By contrast, although some provision was made for future apartment redevelopment, particularly in parts of Oliver and Garneau, the construction of apartments in portions of the study areas zoned for single-family houses should indicate erosion of the low-density housing stock.

3.4.3.2 Research Question Two

Renovation, broken down by date, type and scale, is used here as an indicator of improvement in the condition of houses. The date of renovation was selected as an evaluative indicator because an increase in the incidence of renovations after the approval of a plan may indicate that it created a climate conducive to revitalizing the existing housing stock. The types of renovations were examined to permit distinctions to be made between different forms of improvement; for example, space additions are more likely to be related to enhancement of the amenity and status of a house than is the replacement of a furnace or foundations, which are more likely to be related to bringing deteriorated or outmoded houses up to acceptable standards. The scale of renovations is important because it is, most directly, large-scale renovation that is indicative of amenity enhancement. Two indicators are available which permit the extent of large-scale renovation to be examined - an increase in the structural value of houses, and a reduction in their effective age.

Structural value refers only to the value of the building itself; it does not include the value of the land on which the structure stands. It is calculated on the basis of quality of building materials and construction techniques, as described in the Alberta Property Tax Assessment Manual. In this, houses are classified according to their structural type (for example, bungalow, two-storey, etc.) and age, as well as the quality of the materials and workmanship that have gone into their construction, and the structural features expected to be found in each type and class of house. Using the guidelines provided in the manual, the assessors apply a structural value to every house when it is built. This value is expressed in constant dollars (currently 1985 dollars).

If, when inspecting a house, an assessor finds that renovations have been carried out, he will calculate how much the work adds to its structural value by examining the type of work and the quality of the materials and workmanship involved. The cost of preparing a house for renovation is not included, though. For example, the cost of hiring a contractor to remove a roof before replacing it with a new one is not included in the structural value. Neither are decorating and furnishing costs associated with, for example, the construction of an addition. Only the structural characteristics of the renovations are considered. If anything, then, the increase in structural value underestimates the real value of renovations, but it is still a useful indicator. From a small sample of actual cases, it was determined that the smallest increase in structural value that resulted from the construction of an addition to a house was $5,000. Bearing this in mind, and with the knowledge that the increase in structural value underestimates the real costs of renovations, it was decided to define large-scale renovations as those which resulted in an increase in structural value of $5,000 or more. The city assessor's office confirmed that this should be a valid benchmark.

Sometimes renovations may improve the condition of a house without its structural value being increased. In these cases, effective age is a useful alternative measure of the scale of renovations. A house constructed in 1910 may have been subject to renovations and repairs that, for practical purposes, give it the amenity of a house built in 1950. Since the city assessors will record the effective age of the building as 1950, the difference between the the year of construction and effective age is a measure of the degree to which the house has been renovated. This is generally used by the assessors to measure improvement in the condition of houses that have outlasted their expected lifespan (usually 60 years). Most commonly these are cases of historic restoration. Houses whose effective age has been reduced represent a smaller and more exclusive group than those whose structural value has been increased. Moreover, they represent a distinctive form of improvement associated with a relatively small sub-group of the housing stock. Nevertheless, the assessors suggest that even within this group large-scale renovations are best represented by reductions in effective age of more than ten years. If, in any neighbourhood, there are a large number of houses that have experienced such a change of effective age, widespread improvement in the housing stock is indicated.

3.4.3.3 Research Question Three

The concept of the socially mixed residential area, containing a cross-section of population characteristics, has become an established principle of neighbourhood planning. It has been argued that a demographic mix enriches the lives of the residents and promotes social harmony by bringing diverse diverse age groups and social classes into close contact with one another. The concept has always been somewhat ill-defined and controversial, but generally appears to be thought of in terms of social status. In fact, no empirical evidence for the benefits of socially mixed neighbourhoods has been presented. Moreover, it can be argued that that a mixing of age and class groups is just as likely to promote conflict as co-operation, and that social homogeneity is necessary for meaningful social relations to develop in a community. Gans (1968) concludes that the ideal solution would be sufficient homogeneity to ensure enough consensus among neighbours to prevent conflict, but sufficient heterogeneity to create some social diversity as well. The problem for planners is that there are no guidelines to indicate what mixture of specific characteristics would be likely to provide such a social mix. As a result of such uncertainty, some professional planners have expressed scepticism about the feasibility and desirability of intervention to foster socio-economic mixing in residential areas. Nevertheless, the idea of the mixed neighbourhood remains an accepted principle of urban planning (Sarkissian, 1976).

In the present study, to try to reduce the uncertainty associated with the concept, indicators of social mix, as conceived in the case study plans, are used to help answer the third research question. National census data, at the enumeration area scale, were therefore assembled for the study areas for 1971, 1976, 1981, and 1986. The choice of indicators was limited to those variables available in most census years from 1971 to 1986. These were age, educational attainment, occupational status and average family income. By these measures it will be determined whether the neighbourhoods became more socially mixed or more socially exclusive in the periods after their plans came into effect.

The planning objective of encouraging the development of socially mixed, low-density family housing could initiate a process of social upgrading that could inadvertently result in displacement and even gentrification. Therefore, demographic indicators must also be available that reveal changes in the types of people living in the study areas. Accordingly, type of household, occupancy type and mobility status were also extracted from the census as indicators.

It is necessary to define these indicators and to clarify their usefulness to the analysis. First, with respect to age, the percentage of pre-school (0-4 years) children is used here as an indicator of the presence of young families in the neighbourhood. A high percentage of young children is interpreted to indicate a healthy family residential environment. This is particularly significant in inner-city neighbourhoods, where there are often fewer children than in other parts of the city. In addition, the age structures can help reveal whether the neighbourhoods became more mixed in the periods after the plans came into effect.

For the second indicator, household type, Statistics Canada definitions were adopted. Non-family household refers to single people living alone, or unrelated individuals sharing accommodation. One-family households are comprised of a husband and wife, or a common law couple, with or without children. Increasing percentages of family households particularly in Oliver and Garneau, the areas that were most extensively redeveloped, may indicate that the plans have encouraged families to move into the neighbourhoods. This will help in determining whether the plans have been effective in achieving their objective of a mix of household types.

To try to determine whether the population in each area has become more or less stable, a mobility indicator is employed. Again, it is based on Statistics Canada definitions, which divide the population into movers and non-movers. Movers are defined as those who changed their place of residence within the five-year period since the previous census; non-movers are those who were living at the same address at the time of both censuses. Increasing percentages of non-movers are interpreted here to indicate rising residential stability in a neighbourhood, whereas increases in the percentages of movers is interpreted as an indication that displacement was occurring. To supplement this, the lengths of residency reported in a survey of households in each of the four neighbourhoods is used to determine whether or not the neighbourhoods grew in popularity as places to live.

Educational attainment, occupational status and income are regarded as particularly sensitive indicators of social change and revitalization in inner-city neighbourhoods (Hodge, 1979; Hamnett and Williams, 1980; Ley, 1984). Here they are used to determine whether the study areas underwent disproportionately large increases in social status compared to Edmonton in general, particularly after their respective plans were introduced. The aim is to determine whether the study areas became more socially mixed, or socially exclusive after the case study plans were approved.

Occupational status was divided into three classes. The first, the professional category, is defined in this study to include people in the managerial, administrative and related occupation group; in teaching and related occupations; in medicine and health occupations; as well as those in technological, social, religious, and artistic occupations. The white-collar category includes clerical and related occupations, as well as those in sales and service. The blue-collar category is defined to include primary processing; machining, fabricating, assembling, and repairing; construction trades; the operation of transportation equipment; and farming, horticulture, animal husbandry and the like.

Used separately, education, occupation and income may present only a partial picture of social change. A highly educated population is not necessarily a highly paid one; similarly, high incomes are not always accompanied by high levels of educational attainment or occupational status. Therefore, using a method adapted from Ley (1985), aggregate measures of social status were calculated for each area for 1971 and 1986. For each of these years, the percentage of the population with a university degree was added to the percentage in the professional occupational category. The total was then divided by two to give the social status index for the particular year. The difference between 1971 and 1986 was then interpreted as the degree of social status change.

3.4.3.4 Research Question Four

Another possible side-effect of the planning objectives of preserving and upgrading the family housing stock (and one closely related to gentrification) is that the neighbourhoods may become more attractive as areas in which to own houses. The approval of the neighbourhood plans may therefore have led to an increased demand for houses in the study areas and hence to increases in the numbers of sales and in sale prices. It is generally accepted that the frequency of sales and sale prices are likely to increase substantially in neighbourhoods undergoing revitalization (Cybriwsky and Meyer, 1977; National Urban Coalition, 1978; Bixburn, 1979; Clay, 1979; Gale, 1980; National Association of Neighbourhoods, 1980; DeGiovanni, 1983). This is particularly associated with the early stages of revitalization, when the percentage of owner-occupiers and occurrence of renovation begin to increase. Sales activity and prices then jump sharply, signalling increased speculation (James, 1977).

To try to determine whether or not the study plans had the side-effect of producing speculation in the family housing market two indicators are used. First, the total number of sales that occurred each year from 1971 to 1986 was calculated for each of the four study areas; the aim was to determine whether there were disproportionate increases in sales activity after the plans came into effect. Second, the average annual sale price of houses was calculated for each area and citywide, for the same period. The neighbourhood trends were then compared with the citywide averages, particularly for the periods after the plans were approved, to see if there was any tendency for sales values to be disproportionately high in the study areas.

3.4.3.5 Research Question Five

In the case study neighbourhoods, it has been common for controversial development proposals to cause conflict between the local residents and developers. Invariably these cases were reported in the local news media. For this reason, information about the approval of developments that conflict with the plans was sought from local newspapers and magazines, as well as from representatives of the neighbourhood organizations. This information was used to determine the extent to which the plans were effective in preventing unwanted developments. In addition, because an analysis of the effectiveness of neighbourhood plans must include the views of those most directly affected by them, it was decided to determine the residents' perceptions of the effectiveness of their neighbourhood plans.

3.4.4 Data Sources from which the Indicators Were Extracted

3.4.4.1 The City of Edmonton Property Tax Assessment Records

The City of Edmonton property tax assessment records were known to be an invaluable source of detailed housing information (Smith and McCann, 1981) and were chosen as a central source of data for the study. The assessment record was used to obtain the indicators of changes in housing characteristics, renovations and house sales that were, in turn, used to answer the first, second, and fourth research questions. The information for each house is stored on forms which are used by the assessors when they carry out inspections (Appendix 1). The houses are described on the form under the categories of land use, structural type, condition, age, and occupancy type. The land use code indicates whether a building was used as a single-family or two-family residence, or as an apartment, or if it was in some form of commercial use. Structural type refers to the physical forms of buildings, such as cottages, bungalows, two-storey houses, walk-up apartments and so on. Building condition means the state of repair at the time of data collection, and age is based on the date of construction, which the assessors record. Occupancy type was determined by comparing the property addresses with the addresses to which the property-tax notices were sent. When the two addresses corresponded, it was clear that the property was owner-occupied; when they were different, the property was usually renter-occupied.

Changes in these characteristics are noted on the forms by the assessors. For example, a change in the land use code from single-family to two-family, and an accompanying explanation, indicates a conversion. The corollary is that a change in the land use code from two-family to single-family indicates that the house has been reconverted. The demolition of a house is usually indicated by the attachment of a new assessment form to the one previously used for the demolished house, or simply by a note made on the new form. Details of renovations are obtained by the assessors through site inspections or from building permits. They make notes on the assessment cards recording the types of work carried out, as well as the dates and values of the permits. After inspecting the changes, they may adjust the structural value and effective age of the building on the form. (Building permit information was used only to clarify the dates of renovations. Permit values are regarded as unreliable data and were therefore excluded from the analysis). One thing the assessors do not do is classify the types of renovations; they simply describe the work that has been carried out. For the purposes of the study it was necessary to impose order on this information by devising a classification scheme, based on the existing housing rehabilitation literature (Clayton Research Associates, 1986; Bunting and Phippps, 1988). House sales data had to be extracted from two sources. At the time the research was being conducted, the assessment department was transferring many of its records to computer files. These files were used to obtain the dates and values of house sales that occurred after 1981. For the period before 1981, the source was microfiche records of the tax rolls. Finally, for all of these indicators, dates of changes were recorded, since they are vital to the interpretation of development trends before and after plan approval.

A special survey form was drawn-up to record the data relevant to the study (Appendix 2). From the assessment files, data was assembled for a total of 1668 houses - 792 in Garneau, 204 in Oliver, 322 in Groat Estate, and 350 in Riverdale. These data cover the period 1971 to 1986 to ensure that development trends can be charted over an adequate period and to permit before and after plan comparisons to be made. The data were coded and entered into computer files. The analysis, which is mainly based on straightforward descriptive statistics, was then undertaken using the SPSSX computer program.

Although the assessment record is extremely useful, it does suffer from some limitations. For one thing there is always the possibility that the assessment forms for some houses will be missing from the files. If, for example, assessors are inspecting properties they will be using the forms, and if a property owner is appealing his tax assessment the forms will be needed in the court of appeal. In some cases the forms may simply have been misfiled. At the time of data collection, however, the assessors stated that few of the houses in the study areas were under appeal and that few, if any, records were missing.

Ultimately, assessors must make value judgements about the characteristics of the houses they inspect, particularly in the case of renovations. This, it can be argued, introduces some bias into their assessments, especially considering that the purpose of the assessments is to raise revenue for the municipal government. To offset that danger, an appeal process is available to residents who feel they have been treated unfairly, and this helps to ensure that the assessor's judgements are as consistent and objective as is possible. The assessors are trained in building inspection and the information they assemble must be regarded as the most objective available.

A related concern is that assessors cannot check all neighbourhoods at all times. They therefore have to rely, in the first instance, on building permits to provide information about renovations. It is well known, however, that not all home-owners apply for permits when undertaking renovations, and many will go unreported until the neighbourhood undergoes a systematic check. This means that the amount of renovation activity will normally be underestimated. Similarly, illegal suite conversions may go unnoticed for some time, although the assessors check utility and phone accounts to see if two sets of billing statements are sent to one house, indicating that a conversion has occurred. In contrast, reconversions are nearly always reported immediately since the homeowner returning the house to single-family use will benefit from reduced property taxes.

3.4.4.2 The Census of Canada

Enumeration area (EA) data were used in the study to permit a direct focus on the small geographical areas represented by the study neighbourhoods. The national censuses for 1971, 1976, 1981, and 1986 were used since these permit the trends before and after the approval of the plans to be examined and, thus, allow the third research question to be answered. Using maps of the enumeration areas for each census year, the EAs that comprised the study areas were identified. In cases where more than half of an EA was outside the boundary of a neighbourhood plan area, the data were omitted from the study. In the main, however, the boundaries of the EAs formed a good fit with the edges of the study areas. The data were then aggregated, permitting accurate demographic profiles to be constructed for each neighbourhood. In addition, data for the Edmonton metropolitan area were used for the purpose of comparison with the study areas (Appendix 3). The bulk of the data was made available by the Population Research Laboratory and the Statistical Data Library at the University of Alberta, with supplementary material from the Edmonton Planning Department. A limitation of the population data is the fact that some variables were not available at the EA level in every census year. Thus, income, classified into groups, was not available at the EA level for 1971 and 1976; mobility, occupational status, and average family income were not available for 1976; and occupancy type was not available for 1981.

3.4.4.3 The Questionnaire Survey

A questionnaire was designed for two purposes: first, to fill possible gaps in the tax assessment data by obtaining information about renovation activity among the residents in each of the four study areas, helping to answer the second research question; and, second, to obtain the residents' opinions about the effectiveness of the plans, fulfilling an important requirement of plan evaluation and helping to answer the fifth research question.

An initial question was asked with the purpose of determining how knowledgeable the respondents were about their neighbourhood plans. Then, in questions 2 to 6, the respondents were asked to rate the effectiveness of the plans in addressing various land use issues, including improving the streetscapes and the condition of houses, reducing traffic problems, preventing apartment redevelopment at the expense of houses, and preventing conversion of houses into business premises. Then, in question 7, they were asked to rate the seriousness of various problems in their areas today. In question 8, the respondents were asked to rate how effective the plans have been in making their neighbourhoods better places to live.

In question 9 the respondents were asked to provide the dates, costs, and types of renovations to their houses, and to state whether or not these were carried out by a hired contractor. The dates were used to try to determine whether or not renovation activity increased after the plans were introduced; the costs were used to help determine the amount of large-scale renovation that has occurred; the types of renovations were used to confirm the data from the assessment record; finally, the amount of renovation carried out by hired contractors was used as an additional indicator of large-scale renovation, since it is reasonable to assume that large-scale or complicated renovations require specialized skills. The respondents were given the opportunity to provide details of up to four renovation projects, covering the period 1971 to 1986, or their period of residency in the house. In question 10a, the respondents were given the opportunity to choose, from a list provided, the reasons why they renovated their houses. Included in the list are practical reasons, such as the need for basic maintenance and repairs; a personal motive, in the form of personal satisfaction in upgrading the style and looks of the house; an economic motive, the desire to enhance the resale value of the house; and of central concern, given the aims of the research, the knowledge that family housing is protected by the plans. In addition, the respondents could state that they did not renovate their houses, or could provide some other reason, not included on the list. Then, in question 10b, they were forced to choose the most-important and second most-important reasons for renovating. Finally, in questions 11 to 16, the respondents were asked about their length of residency, types of households, educational attainment, household income, occupation, and types of tenure. These data were used to try to assemble a profile of their socio-economic characteristics. The material is included as Appendix 4, since profiles of social and demographic change in each of the four case study neighbourhoods were assembled from the census of Canada.

The questionnaire was pretested in each neighbourhood and, on the advice of neighbourhood group representatives, it was decided that the survey should include house renters. Apparently, some renters have carried out maintenance and even renovations on behalf of the landlord, and in some cases on their own initiative. A covering letter was written which explained the nature of the project and emphasized the confidentiality of the survey. Then, the questionnaire (Appendix 5) was mailed to a 50% sample of householders in each area. The size of the sample is a compromise between the constraints of time and money and the need to obtain a sufficient number of useable responses. Households were chosen for the survey by running an SPSSX random sample program on the street addresses of all the houses in each neighbourhood. The addresses were obtained from the tax-assessment record.

In the case of Garneau, 388 questionnaires were received by potential respondents, and 151 were completed and returned, for a 39% rate of response. In Groat Estate, 167 were posted, with 64 returned, for a 38% rate of response; and in Riverdale, a 32% rate of response was achieved, when 62 respondents completed and returned the questionnaire. The poorest response came from Oliver, where only 204 houses were being used as residences at the time of the survey. Questionnaires were therefore sent to all the houses and were accepted at 193 of them. Despite reminders, however, only 48 forms were returned, resulting in a 25% rate of response.

The information on the questionnaires was coded and entered into computer datafiles. The SPSSX statistical package was then used to produce descriptive statistics, and tables and graphs were produced using the Harvard Graphics program.

3.4.4.4 News Media and Interviews

The data sources described above were supplemented by an on-going review of newspaper and magazine articles and minutes of meetings, as well as contact with neighbourhood organizers. These were particularly useful for reconstructing past events, an essential requirement of an ex-post evaluation. Given the fact that the plans were introduced between eight and thirteen years ago, it was fortunate that a number of people who were involved in neighbourhood planning issues were still living in the areas, or at least in Edmonton. Informal interviews with these people were useful in understanding the changes that have occurred in the areas, particularly since the plans were approved. In addition to their personal observations, they were able to provide notes and local newsletters which were invaluable in developing a fuller understanding of past planning issues.

4. Development and Planning Histories of the Study Areas

4.1 Introduction

This chapter is a form of action history, described in chapter 3 as an important component of an evaluation. It establishes the context within which the case study plans were formulated. First, however, to establish the technical planning basis of the research, it is necessary to describe the particular planning system within which the case study plans were created. This means describing the various land use control techniques that have been available in Edmonton, and the legal basis for neighbourhood planning as it has evolved within the framework set by the Alberta Planning Acts. Long-term development trends in the study areas are then described, to explain the creation of the urban environments that the residents mobilized to protect. This is followed by discussions of the land use conflicts that caused residents to mobilize against redevelopment, their efforts to organize, and their involvement in the planning system in preparing the neighbourhood plans. The final section of the chapter is devoted to the substance of the plans approved as a result of the residents' efforts. This means that the official land use districts (or zoning categories) applied to the neighbourhoods are described.

The information is drawn from the tax assessment records, fire insurance maps, old air photos, and a variety of documentary sources, including plans produced by the residents' organizations and the City of Edmonton, a provincial government planning guide, and newspaper and magazine articles. Following the review of the development control system in Edmonton, the material in each section is organized by the order in which the neighbourhood plans were introduced. The Groat Estate and Riverdale plans were introduced in 1977 so these areas are addressed first; the Oliver and Garneau plans were approved in 1981 and 1982 respectively, and are treated in that order.

4.2 The Development Control System in Edmonton

4.2.1 Zoning

In common with virtually all other North American cities, Edmonton has long depended upon zoning as its primary instrument of development control. Zoning is the system of dividing a city into distinct land use districts, as a means of regulating the location and development of different land uses and their associated buildings. One of the fundamental aims of zoning is the separation of incompatible land uses. This is based on the belief that only certain land uses are compatible with one another, and that particular combinations of uses are appropriate only in certain areas of the city; hence, for example, industrial activities are generally prohibited in residential neighbourhoods. Each official district contains a predominant land use and permits the development of one or more building types, according to regulations governing such features as lot sizes, building heights and bulks, and site coverage. A zoning bylaw consists of two parts: a text which outlines the development regulations and the land use districts; and a map which indicates the precise areas covered by all of the designated districts (Edmonton, 1979).

Zoning predetermines the land use pattern of a community and any future development must then conform to that pattern. Zoning thus provides certainty and protection for landowners, because they know what kinds of developments will be permitted (and not permitted) on their own land and in its vicinity. At the same time, development rules under zoning are extremely rigid and it has been criticized for being unresponsive to rapid urban change. The exercise of zoning powers requires a bylaw to be adopted by the municipal council, which means that development decisions have the full force of law. The scope of administrative decision-making is correspondingly limited. That is to say, planners, representing the municipal administration, are given very little discretion over development decisions.

Edmonton's first zoning bylaw, adopted in 1933, created twelve zoning districts. By the late 1940s, these districts were out-of-date, in light of the new social and economic circumstances that followed World War Two. Interim development bylaws were therefore adopted in 1950 and 1959, following an amendment to the Town and Rural Planning Act which allowed municipal governments to employ a more flexible approach to land use control while they were developing their long range planning policies and updating their regulatory tools. In Edmonton's case, a new comprehensive zoning bylaw was adopted in 1961. It remained in force, with many amendments, until 1980, when it was replaced by the current land use bylaw. Since the early 1960s, then, zoning has been applied to most parts of Edmonton, but not always to the older central city neighbourhoods that were experiencing the bulk of the pressure for redevelopment and that are the focus of the present study. There an alternative technique, known as direct development control, was used to complement the conventional zoning regulations.

4.2.2 Direct Development Control

As a consequence of zoning's ineffectiveness under conditions of rapid change, there has been a modest shift in Canada toward the use of direct development control, as first conceived and applied in Britain (Cullingworth, 1985). In theory, direct development control is a system of regulation in which permission to develop is at the discretion of the municipal planning authorities. Under such a system, all development applications are examined individually, on their merits, although they must conform to the city's general plan, if there is one. Direct control procedures are usually applied in situations where zoning is regarded as inappropriate and where careful but flexible control is necessary - for example, in mixed use and high-density areas in the centre of the city where there is a high degree of uncertainty about future development trends and forms (Edmonton, 1979). It is important, however, that direct control powers operate within a strong policy framework otherwise development becomes ad hoc. In the current Alberta Planning Act, for instance, it is laid down that a general municipal plan must be in place before direct control districts can be designated.

The direct control concept was introduced to Alberta in the amended Planning Act of 1950, in the technique of interim development control. The concept was then refined in the revised Planning Act of 1963, which allowed municipalities to apply development control regulations through resolutions of the municipal council rather than through bylaws. These regulations were in the form of a "land use classification guide" and a "schedule of permitted uses" (MacDonald, 1984). In 1964, the City of Edmonton adopted this procedure to complement the zoning bylaw that came into force in 1961. The land use classification guide showed seventeen areas under direct development control. It was accompanied by a schedule of permitted uses which described the development control districts and listed the specific uses allowed in each of them, as well as the development standards pertaining to each use (Edmonton, 1979). In fact these instruments came to resemble zoning bylaws and were administered in much the same way. Direct development control was treated in Edmonton as a form of zoning, rather than an alternative to it. This caused confusion for landowners and developers who, on many occasions, turned to the courts to clarify the status of proposed developments (MacDonald, 1984).

4.2.3 The Land Use Bylaw

In 1977, a new Planning Act was adopted in Alberta. One of its major objectives was to reform the province's development control system. To this end, the "land use bylaw" was introduced as the chief instrument of control. It was designed to be a hybrid of zoning and direct development control, with the aim of producing a less confusing system than prevailed under the 1963 Act. Under a land use bylaw, a municipality is divided into land use districts, as in traditional zoning, but the municipal council is permitted to create direct control districts as well. Within these districts, the council itself may regulate the development of land and buildings as it considers necessary (Alberta, 1977).

The City of Edmonton adopted such a land use bylaw in 1980. The land use districts under the old zoning bylaw were revised, to remove zones that were out-of-date and to make provision for new types of land uses. In addition, some conventional residential zones had come to be regarded as too rigid, restricting the construction of innovative forms of housing at compatible densities of development, such as stacked townhouses in walk-up and high-rise apartment zones. The zoning bylaw was also criticized for the proliferation of special-purpose zones. This was a result of its inflexibility, which caused new zones to be created for each new problem. Instead, under the land use bylaw, five categories of direct control districts were created. (Edmonton, 1979). The land use bylaw provides lists of discretionary uses for each of these categories, together with development regulations that control lot coverage, building setbacks, and the like. Direct control districting has been applied to some areas formerly under the control of the land use classification guide, mainly in the CBD and in some surrounding residential neighbourhoods, including the areas under study.

In practice, like its predecessor, the system of direct control districts is used as a form of zoning. It involves the application of tailor-made zoning districts to specific sites. This may be explained, at least in part, by the fear that the direct control procedure could lead to ad-hoc or arbitrary decision-making and reduce the certainty and security that is provided by zoning.

4.2.4 Forms of Neighbourhood Planning in Edmonton

Prior to the introduction of the 1977 Planning Act, neighbourhood planning could be carried out in one of two ways: either through the adoption of a development scheme bylaw, or through the adoption of a community plan as a resolution of council. The 1977 act replaced both of these measures with the area redevelopment plan bylaw as an instrument for controlling development in older neighbourhoods. The three forms of plan are examined in turn.

From the 1950s, under section 114 of the Planning Act, a municipal council was permitted to apply a development scheme bylaw to an area. Such a bylaw gave the council virtually total control over development in the prescribed area, ranging from the right to reserve land for public facilities such as schools, roads, or parks, to the power to regulate the types of buildings that might be constructed. The council, for its part, was required to prepare a clear and exact plan of future land use, but that was difficult to do in areas that were experiencing rapid change. As a consequence, development scheme bylaws were used in only four cases in Edmonton; none of them was in inner-city neighbourhoods that were experiencing the heaviest pressure for redevelopment.

The alternative procedure was to adopt neighbourhood plans as resolutions of council rather than as bylaws. In effect, this meant that plans were policy guides, with limited legal standing. The zoning bylaw was usually changed to conform with the plan, but the council was not so strictly bound to a particular pattern of future development as it would have been under a development scheme bylaw. This suited Edmonton's city councils, given the pressure for redevelopment they faced, particularly in the 1960s and early 1970s. In both Groat Estate and Riverdale, for example, the neighbourhood planning committees aimed to have their respective plans adopted as development scheme bylaws, to ensure that future development would be precisely defined and closely controlled. In neither case was this acceptable to city council, which elected to adopt the plans by resolution, with appropriate amendments to the zoning bylaw.

The third approach, the "area redevelopment plan", was introduced in the revised Planning Act of 1977. It is designed to assist urban municipalities in effectively controlling the redevelopment of their older neighbourhoods. Under the Act, redevelopment plan areas may be prescribed by a municipal council, through the passage of a special bylaw. Area redevelopment plans must also conform with land use bylaws for the affected areas; in fact, the two instruments work hand in hand. This is the procedure that was followed for the Oliver and Garneau community plans, which were adopted as area redevelopment plan bylaws in 1981 and 1982 respectively. In both cases, development control is exercised through a combination of zoning and direct control districts under the land use bylaw of 1980.

4.3 Long-Term Development Trends in the Study Areas

4.3.1 Groat Estate

Groat Estate is a comparatively old residential area by Edmonton standards. It takes its name from one of Edmonton's earliest settlers, Malcolm Groat, who built a house in the area around 1870. In 1882 the area was officially surveyed and Groat's land was designated as river lot number 2. When Edmonton was incorporated as a town in 1892, its western boundary reached to the eastern edge of Groat's property. In 1903, anticipating that his land was about to be brought within the city boundaries, Groat began to subdivide and the residential area now known as Groat Estate was laid out in two plans. One plan created 122nd, 123rd and 124th streets south of 109th Avenue; the other 125th, 126th and

127th streets (Figure 4). Then, in 1911, a number of large country houses were built on the east bank of Groat Ravine, followed shortly afterwards by more modest but gracious red brick houses on Villa Avenue. These established a rather high-status identity for the area.

By 1914, the area south of 109th Avenue between 122nd Street and 127th Street was fairly well built up. Malcolm Groat himself retained a 3.8 hectare parcel of land on the bank of Groat Ravine, where he built a large brick house in 1907. This plot was turned over to municipal ownership in 1929 in lieu of taxes. It was subdivided in 1930 and became known as Clifton Place. In the 1920s and 1930s a number of the other large properties along Groat Ravine were subdivided and new houses constructed on the lots. Infilling continued throughout the 1950s, particularly to the south of 107th Avenue which had then become an arterial street and the effective community boundary. After 1959, detached house construction virtually ceased; only occasional infilling has occurred since then (Figure 5).

At the time the research data were assembled in 1986, 322 houses stood in Groat Estate. More than half of them were one-and-three-quarter to two-and-a-half storey structures as defined by the assessment department (Figure 6). Usually they were of wood-frame construction, although the neighbourhood is notable for the remaining large, brick-built merchant's houses near the ravine on Villa Avenue. Eighty-seven percent of the houses were used as single-family dwellings (Figure 7). The great majority (70%) were in fair condition (Figure 8), and 62% were owner-occupied (Figure 9).

In addition to single-family dwellings, four types of apartment buildings were considered in the survey; first, walkup apartments,

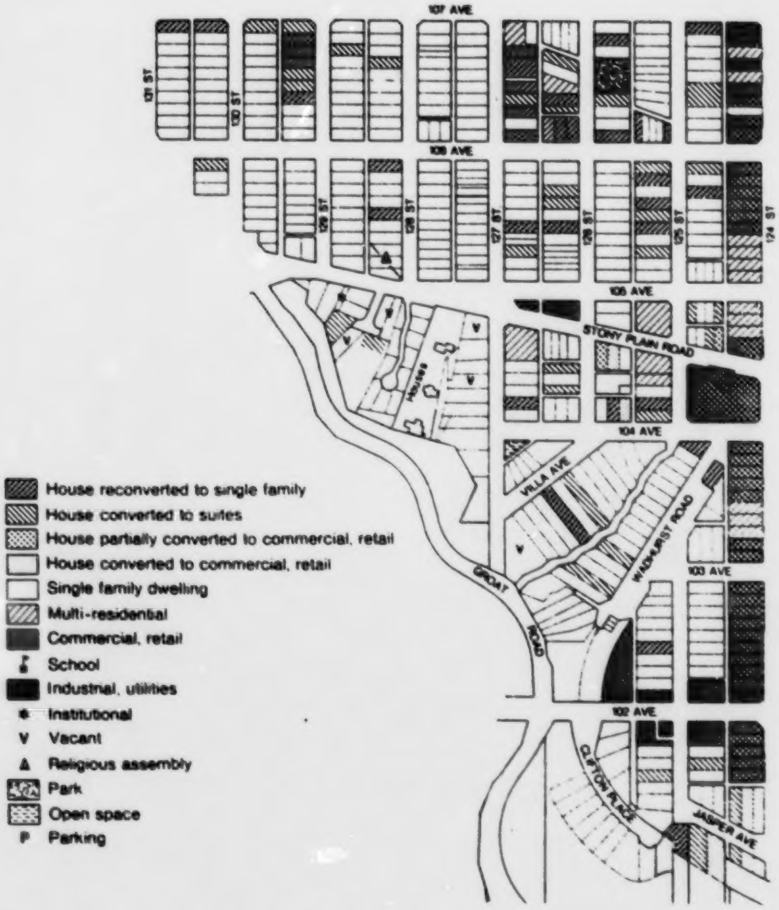

107 AVE
131 ST
130 ST
108 AVE
129 ST
128 ST
127 ST
126 ST
125 ST
124 ST
106 AVE
STONY PLAIN ROAD
104 AVE
VILLA AVE
WADHURST ROAD
103 AVE
GROAT ROAD
102 AVE
CLIFTON PLACE
JASPER AVE
House reconverted to single family
House converted to suites
House partially converted to commercial, retail
House converted to commercial, retail
Single family dwelling
Multi-residential
Commercial, retail
School
Industrial, utilities
Institutional
Vacant
Religious assembly
Park
Open space
Parking

Figure 4. Land Uses in Groat Estate in 1986

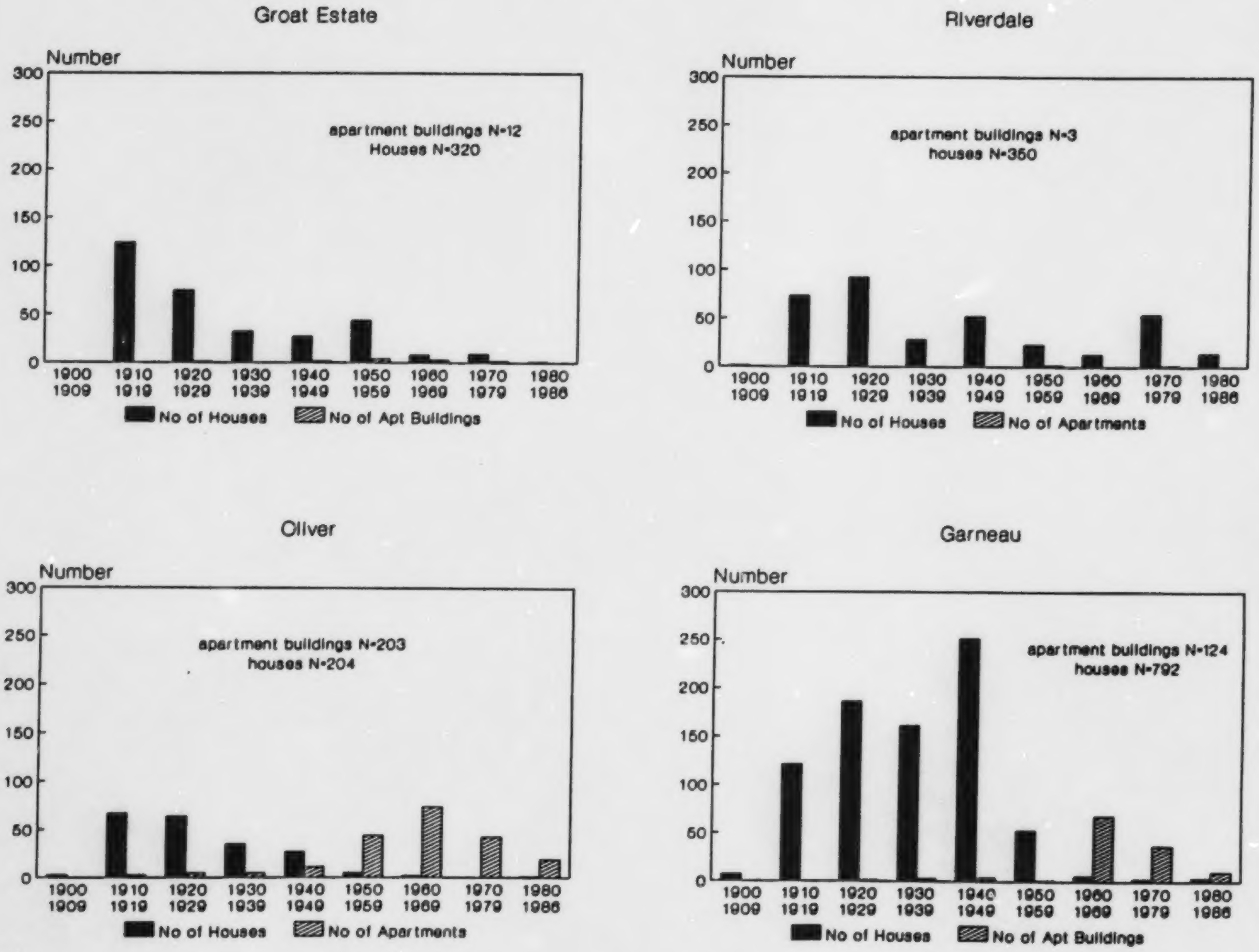


Figure 5. Trends in House and Apartment Construction in the Study Areas 1900-1986

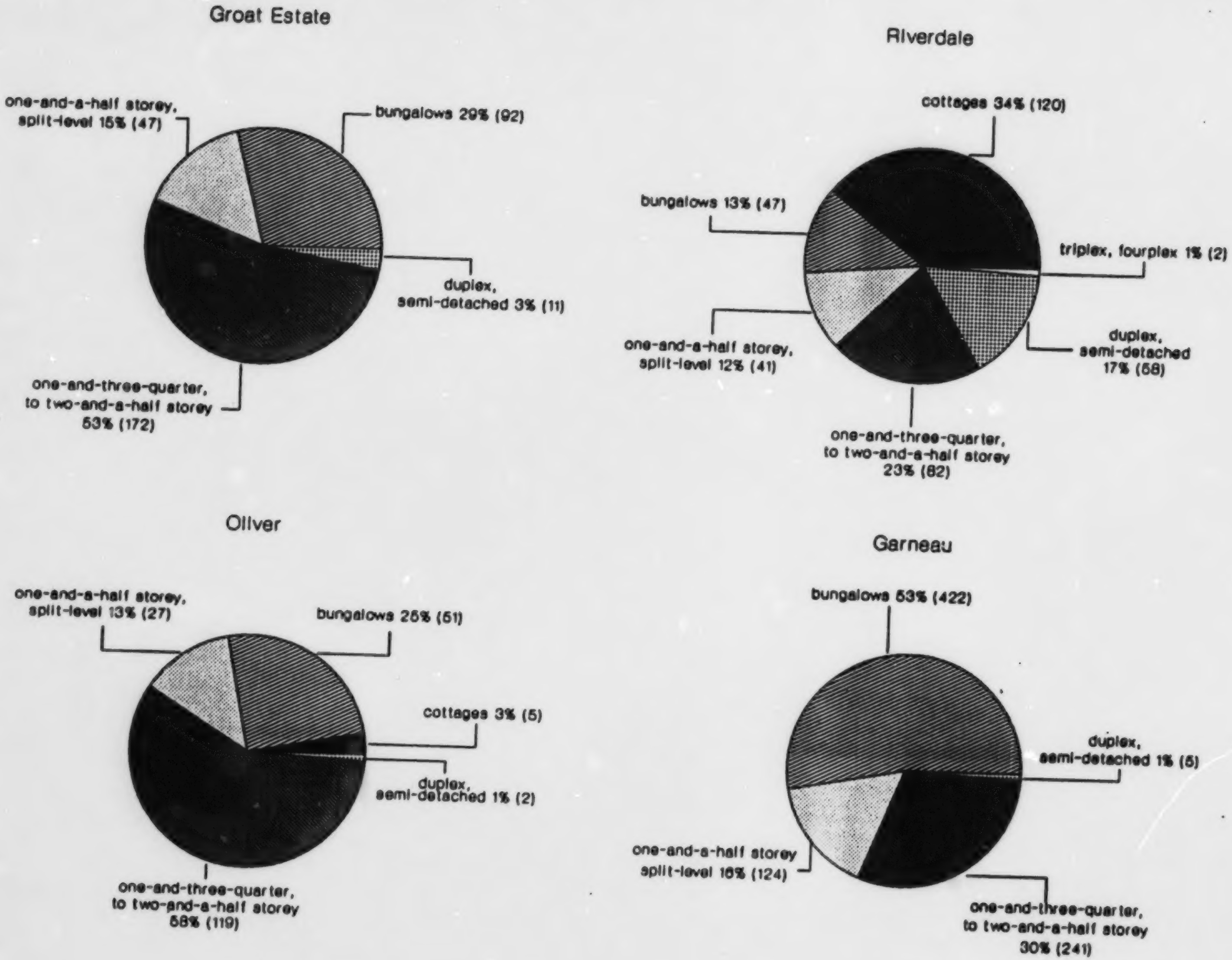


Figure 6. Types of Houses in the Study Areas in 1986

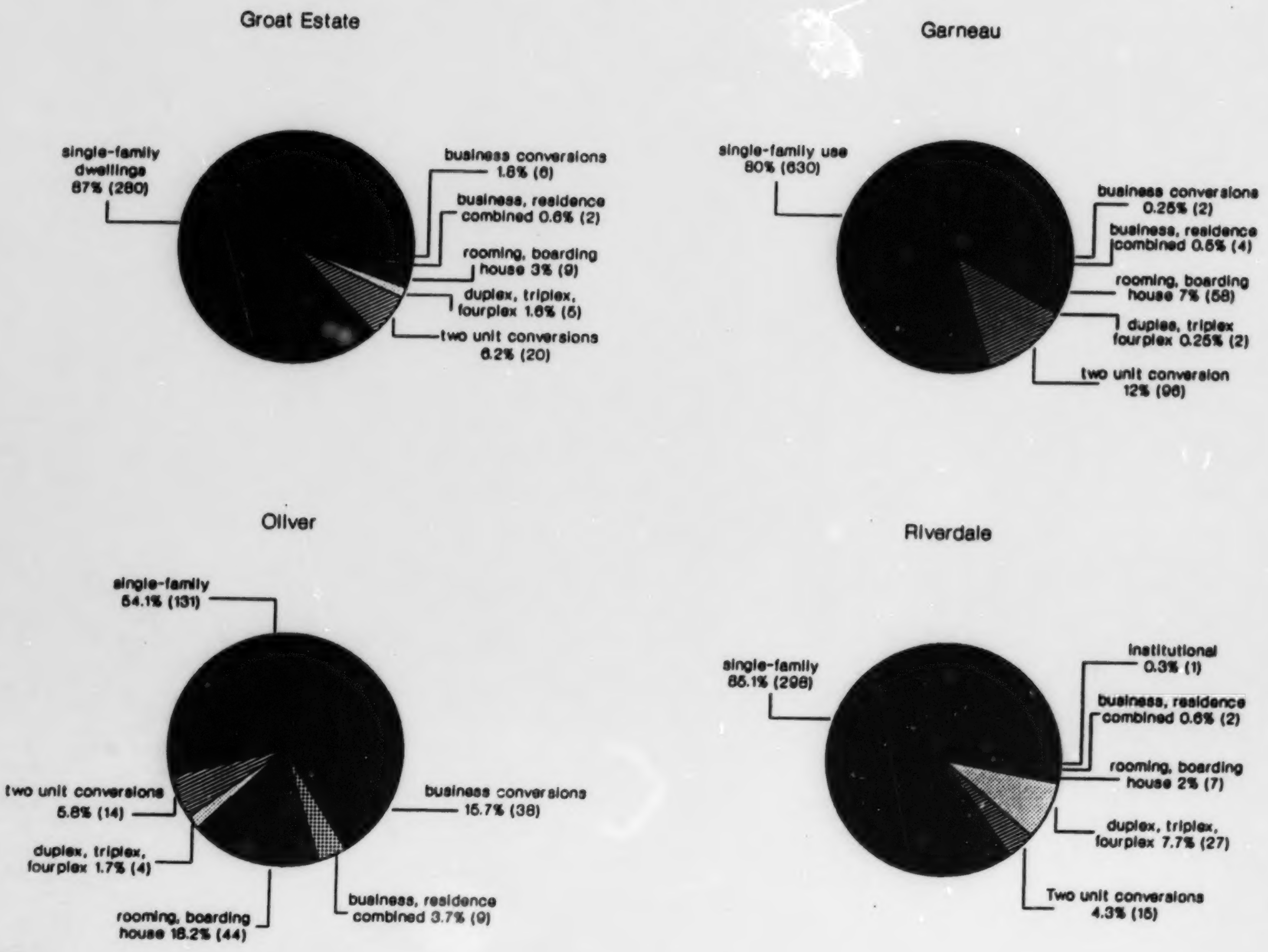


Figure 7. The Uses of Houses in the Study Areas in 1986

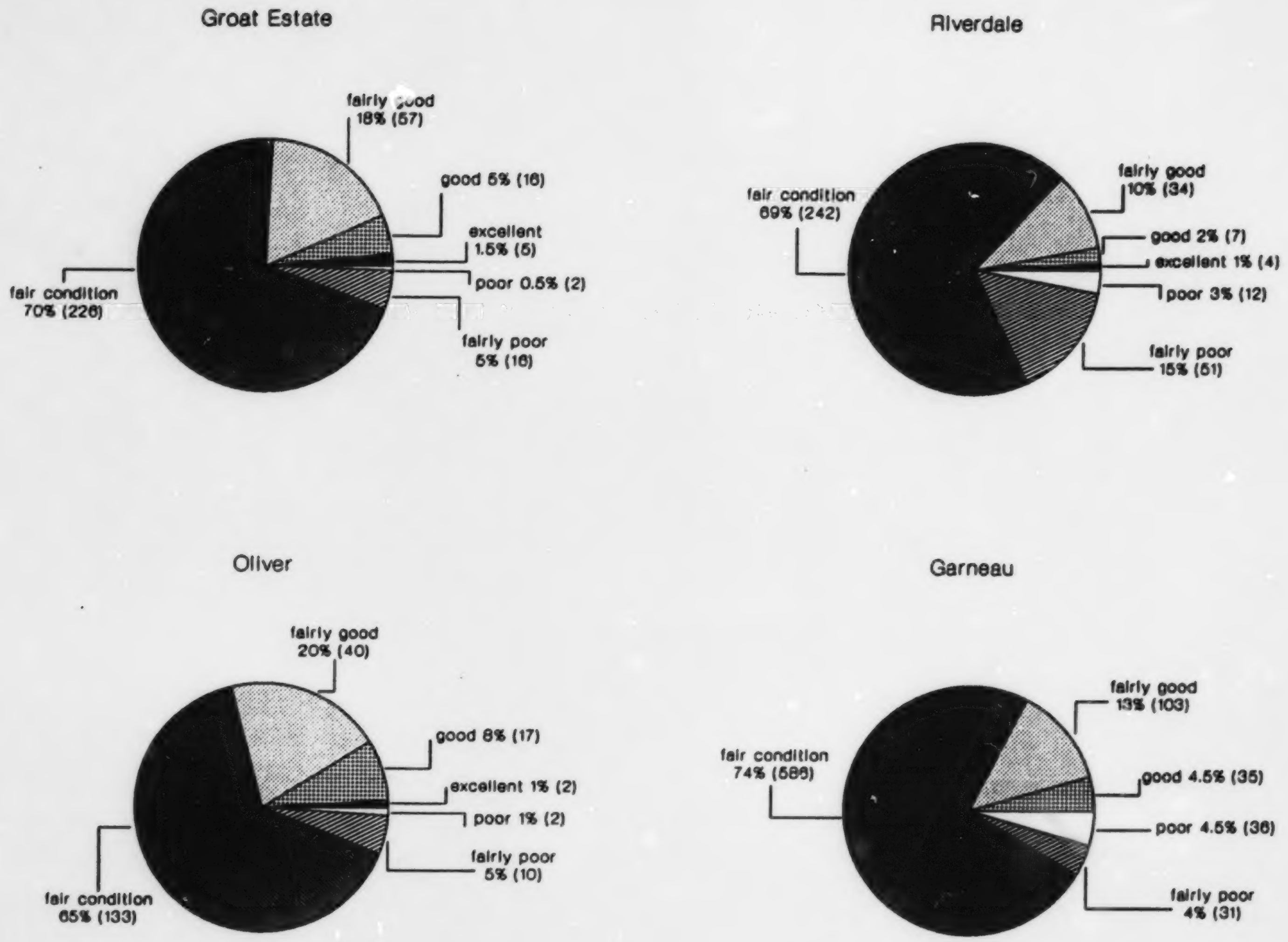


Figure 8. The Condition of Houses in the Study Areas in 1986

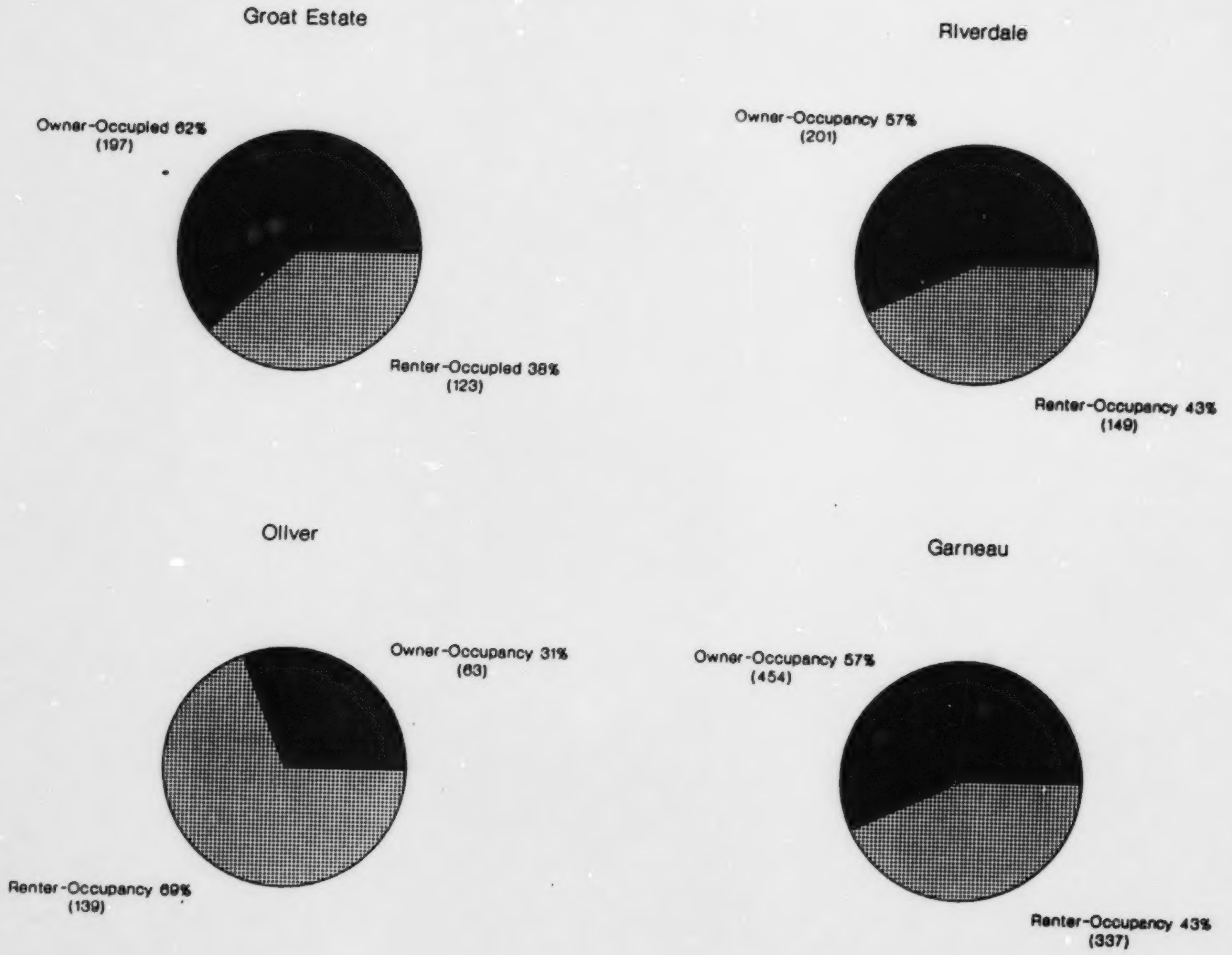


Figure 9. House Occupancy Type in the Study Areas in 1986

defined here as buildings of up to five storeys; second, high-rise apartments, defined as buildings of more than five floors; third, buildings that combine high-rise apartments and business offices or shops; fourth, senior citizens' residences. There were only eleven apartment buildings and one senior citizens' residence in the whole of Groat Estate in 1986 (Figure 10), demonstrating that the area was virtually unaffected by Edmonton's apartment redevelopment boom of the 1960s and 1970s (see also Figure 5).

A streetcar line was constructed along 124th Street in 1912, which helped facilitate the development of that street as a commercial strip. Today it forms the eastern boundary of Groat Estate. Some commercial development has also spread along Stony Plain Road and 102nd Avenue, the main through roads (Figure 4).

4.3.2 Riverdale

Riverdale is one of Edmonton's earliest settled areas. In 1883 D.R. Fraser established a sawmill and lumberyard which were the main sources of employment on what became known as Fraser Flats. Ten years later, in 1893, J.B. Little established a brickyard on a nearby site (Figure 11). It operated until the early 1980s as a retail outlet for bricks and tiles. In the 1890s, a few cottages were built in the area, but the bulk of development occurred after 1910. By 1914, Riverdale was a fully developed working class community complete with a church and school, although some further building took place after World War Two. With its modest houses and secluded location in the river valley, the neighbourhood had something of the character of a small rural town. Very modest amounts of infilling occurred in the 1950s and 1960s, although

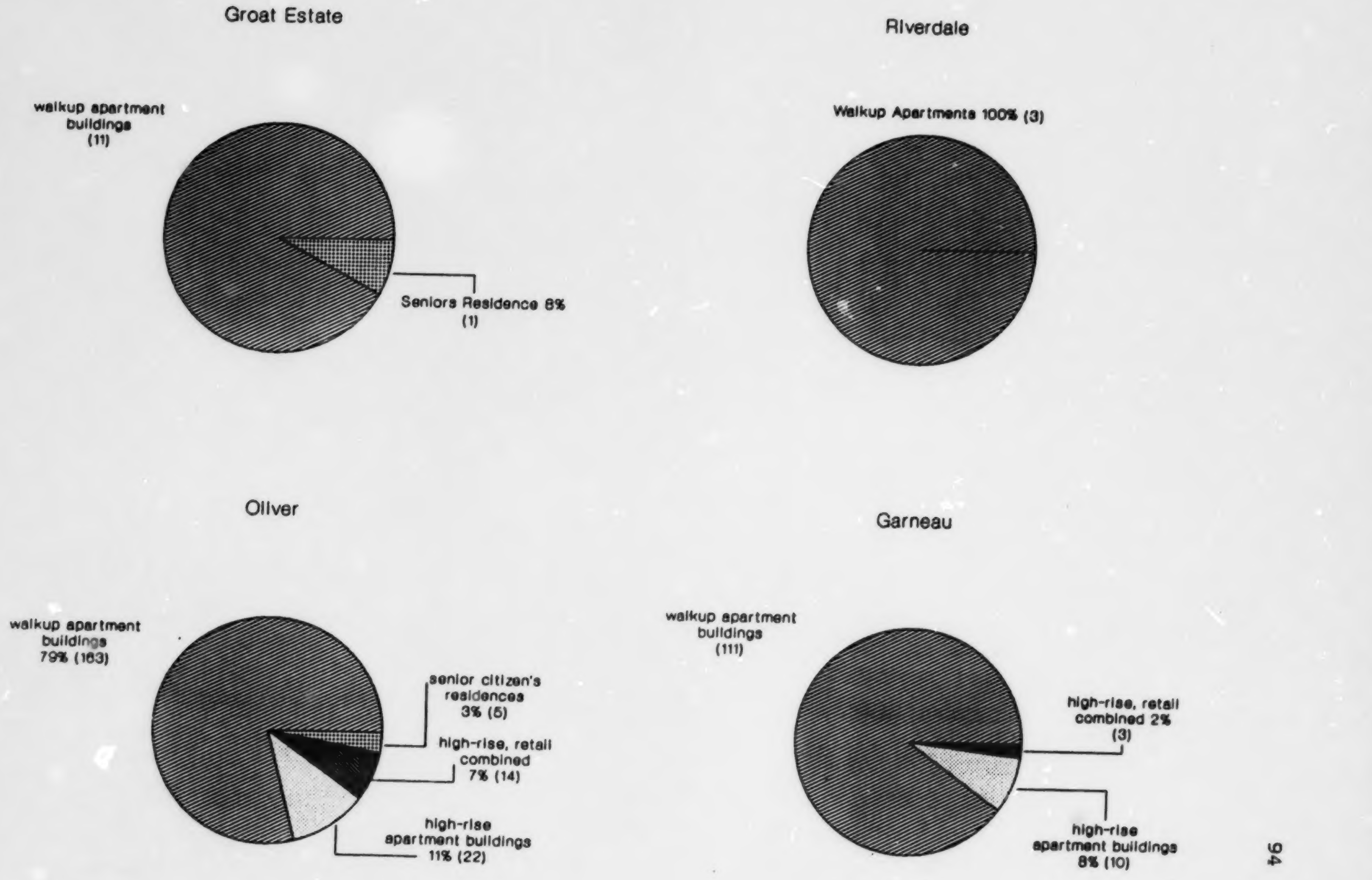


Figure 10. Types of Apartment Buildings in the Study Areas in 1986

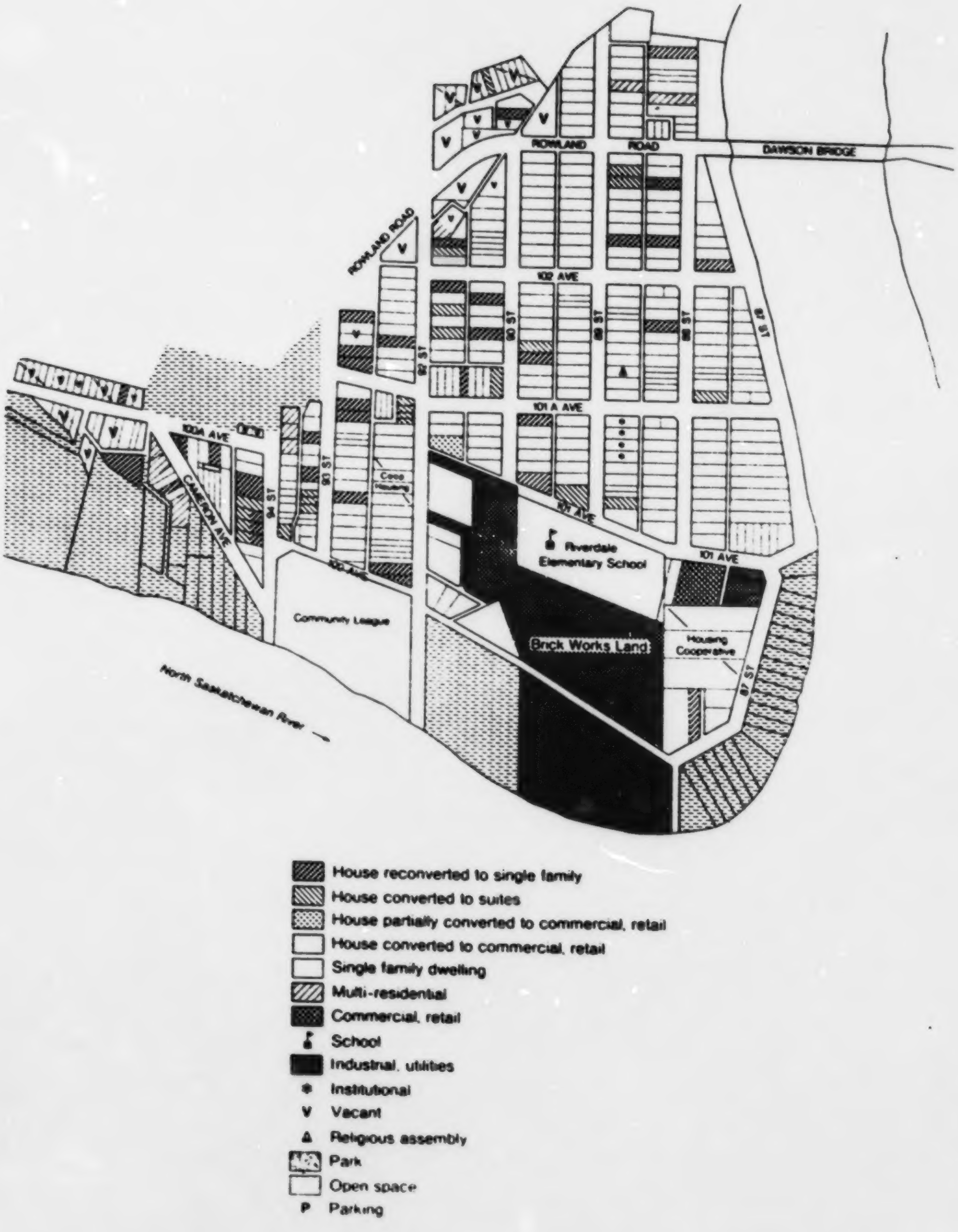

ROWLAND ROAD
DAWSON BRIDGE
ROWLAND ROAD
102 AVE
92 ST
91 ST
90 ST
89 ST
88 ST
87 ST
101 A AVE
100A AVE
CAMERON AVE
94 ST
93 ST
Coop Housing
101 AVE
Riverdale Elementary School
100 AVE
Community League
Brick Works Land
Housing Cooperative
87 ST
North Saskatchewan River
House reconverted to single family
House converted to suites
House partially converted to commercial, retail
House converted to commercial, retail
Single family dwelling
Multi-residential
Commercial, retail
School
Industrial, utilities
Institutional
Vacant
Religious assembly
Park
Open space
Parking

Figure 11. Land Uses in Riverdale in 1986

the 1970s saw an increase once again, to the extent that 15% of the 1986 housing stock was built between 1970 and 1979 (Figure 5). Even so, Riverdale continued to have a high percentage of cottages (34%), reflecting its relatively unchanged nature, although the duplex/semi-detached category, which accounted for 17% of Riverdale's houses (Figure 6), was better represented than in the other study areas. The duplexes were built in the late 1970s, replacing the small, older cottages and bungalows. In addition, housing cooperatives have been established in Riverdale, contributing more than 70 housing units in the form of row-houses and duplexes. They are not all included in the survey data because information about individual units was not always available. Eighty-five percent of the houses in the area were used as single-family dwellings (Figure 7), 69% of them were in fair condition (Figure 8), and 57% were owner-occupied (Figure 9). On the other hand, there were only three walk-up apartment buildings in Riverdale (Figure 10), demonstrating that it has remained virtually unaffected by apartment redevelopment.

4.3.3 Oliver

In 1883 the Hudson's Bay Company sold several blocks of land, north of the North Saskatchewan River and west of 109th Street, to the Oblate Fathers and the Grey Nuns. These religious orders intended to build a church and hospital, and to settle the land. The construction of St. Joachim's Church in 1898 marked the beginning of development in the area that became Oliver, named after Frank Oliver, a local newspaper publisher and sometime minister of the interior. Initially, the area was francophone in character, but the English-speaking population grew substantially during the economic boom that occurred prior to World War One. Construction was mostly located close to the edge of the North Saskatchewan River valley, but in 1909 an Anglican church was established at the corner of what is today 102nd Avenue and 116th Street. This part of the district was still mostly bushland with only a handful of people living there. However, as Edmonton's population rose from 25,000 in 1911 to 70,000 in 1913 (MacDonald, 1987), the Oliver area grew accordingly. Between 1900 and 1930, it became a fashionable neighbourhood in which to live, and numerous large, two to two-and-a-half storey, wood-frame and brick houses were constructed. In 1922 a large skating rink was opened, followed by one of Edmonton's first public swimming pools in 1924. Oliver remained a location for high status residents until the 1970s (Fairbairn, 1978).

The construction of single-family, detached houses in Oliver dropped sharply after 1949. In the period between 1950 and 1980, the detached housing stock was actually reduced as the area experienced increasing apartment redevelopment (Figure 5). At the time of data collection, 204 houses remained in residential use and were scattered throughout the neighbourhood (Figure 12). As in Groat Estate, more than half (58%) of the remaining houses were one-and-three-quarter to two-and-a-half storey structures (Figure 6). Most were of wood-frame construction, although some brick-built mansions were still standing. The percentage of the houses used as single-family residences (54%) was smaller in Oliver than the other study areas. This is due to the conversion of houses into business premises and rooming houses, which constituted 16% and 18% of the total stock respectively (Figure 7). The bulk of the houses (65%) were in fair condition (Figure 8), and very few

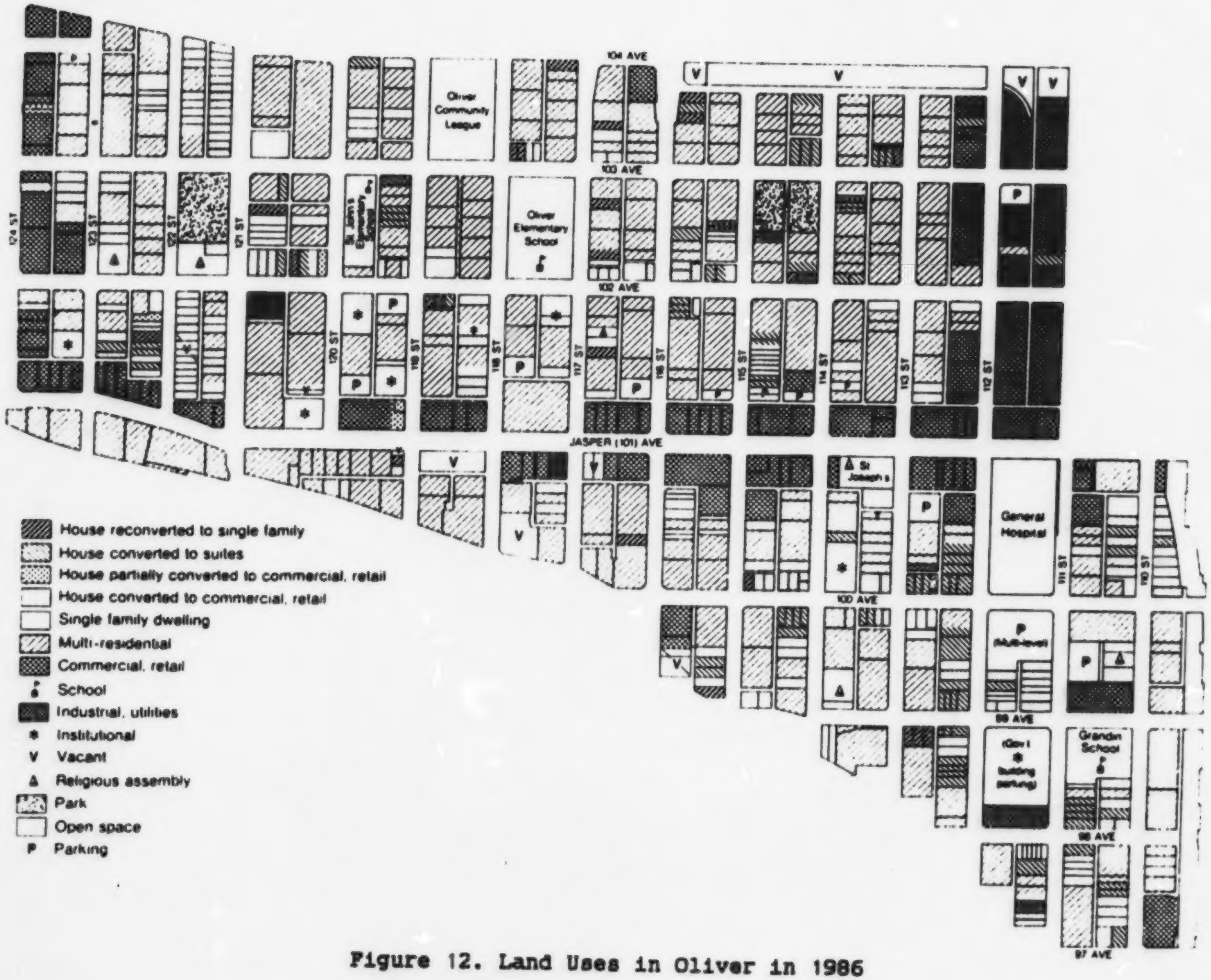

104 AVE
103 AVE
102 AVE
JASPER (101) AVE
100 AVE
99 AVE
98 AVE
97 AVE
124 ST
123 ST
122 ST
121 ST
120 ST
119 ST
118 ST
117 ST
116 ST
115 ST
114 ST
113 ST
112 ST
111 ST
110 ST
Oliver Community League
Oliver Elementary School
St John's Elementary School
St Joseph's
General Hospital
P (Multi-level)
(Gov't building parking)
Grandin School
V
P
House reconverted to single family
House converted to suites
House partially converted to commercial, retail
House converted to commercial, retail
Single family dwelling
Multi-residential
Commercial, retail
School
Industrial, utilities
Institutional
Vacant
Religious assembly
Park
Open space
Parking

Figure 12. Land Uses in Oliver in 1986

(9%) were in the good to excellent categories. Only 31% of the houses were owner occupied (Figure 9), a much lower figure than any of the other study areas.

There were 204 apartment buildings in Oliver in 1986, of which 79% were walk-ups. Another 18% were high-rises and they dominated the landscape of the neighbourhood (Figure 10). A study carried out in 1973 by the Oliver Social Action Committee estimated that the construction of one high-rise apartment building entails, on average, the demolition of eight houses, while a walk-up apartment results in the removal of three. Using these assumptions as a guide, it was estimated that the construction of 55 high-rises and 84 walk-ups, between 1960 and 1973, resulted in the demolition of approximately 700 houses. Most of the high-rise buildings are located near the edge of the river valley, or along Jasper Avenue, while the walk-ups are widely distributed throughout the area.

The extension of the streetcar line along Jasper Avenue in 1912 facilitated the initial development of the street as a commercial strip. Today, shops and offices are concentrated mainly on Jasper Avenue, as well as the 124th Street commercial strip, which forms the western boundary of the area (Figure 12).

4.3.4 Garneau

For the purposes of this study, the Garneau neighbourhood is defined to conform with the area under the jurisdiction of the 1982 area redevelopment plan. This includes portions of the Strathcona and Queen Alexandra districts that are not traditionally regarded as belonging to Garneau. The Garneau district initially formed part of the City of

Strathcona, which amalgamated with Edmonton in 1912. The first sustained period of development occurred in Garneau in the period between 1910 and 1914. The most built-up portion at that time was 88th Avenue, the first paved street in the district, between 110th Street and 112th Street. The density of development generally decreased southwards towards 82nd Avenue (Figure 13). Most of the houses were substantial two to two-and-a-half storey wood frame structures, although there were a few large brick mansions on Saskatchewan Drive. Upon the completion of the High-Level Bridge in 1913, and the construction of a street-car line along 82nd Avenue (Whyte Avenue) and 109th Street to the bridge, better transportation connections were possible with the north side of the river (Hatcher, 1983). This particularly benefitted Garneau and it quickly became one of the higher status neighbourhoods in Edmonton. At this time, its proximity to the university, and to open land to the west (where the Windsor Park neighbourhood now stands), as well as the pleasant treed streets and the scenic view over the river valley, contributed to Garneau's reputation as one of Edmonton's select neighbourhoods (Windsor, 1964).

The initial development was quite localized, however. By 1924, there were still no houses between 109th Street and 110th Street north of Whyte Avenue, and further south many empty lots remained. A small cluster of houses had been built on 83rd Avenue between 106th Street and 107th Street, but much of the land east of 109th Street, north of Whyte Avenue, also remained undeveloped. By 1929, 80 percent of the portion of the area between 87th Avenue and Saskatchewan Drive, between 109th and 112th Street, was developed with houses, while 60 percent of the area between 87th Avenue and 82nd Avenue between 109th to 112th Street was

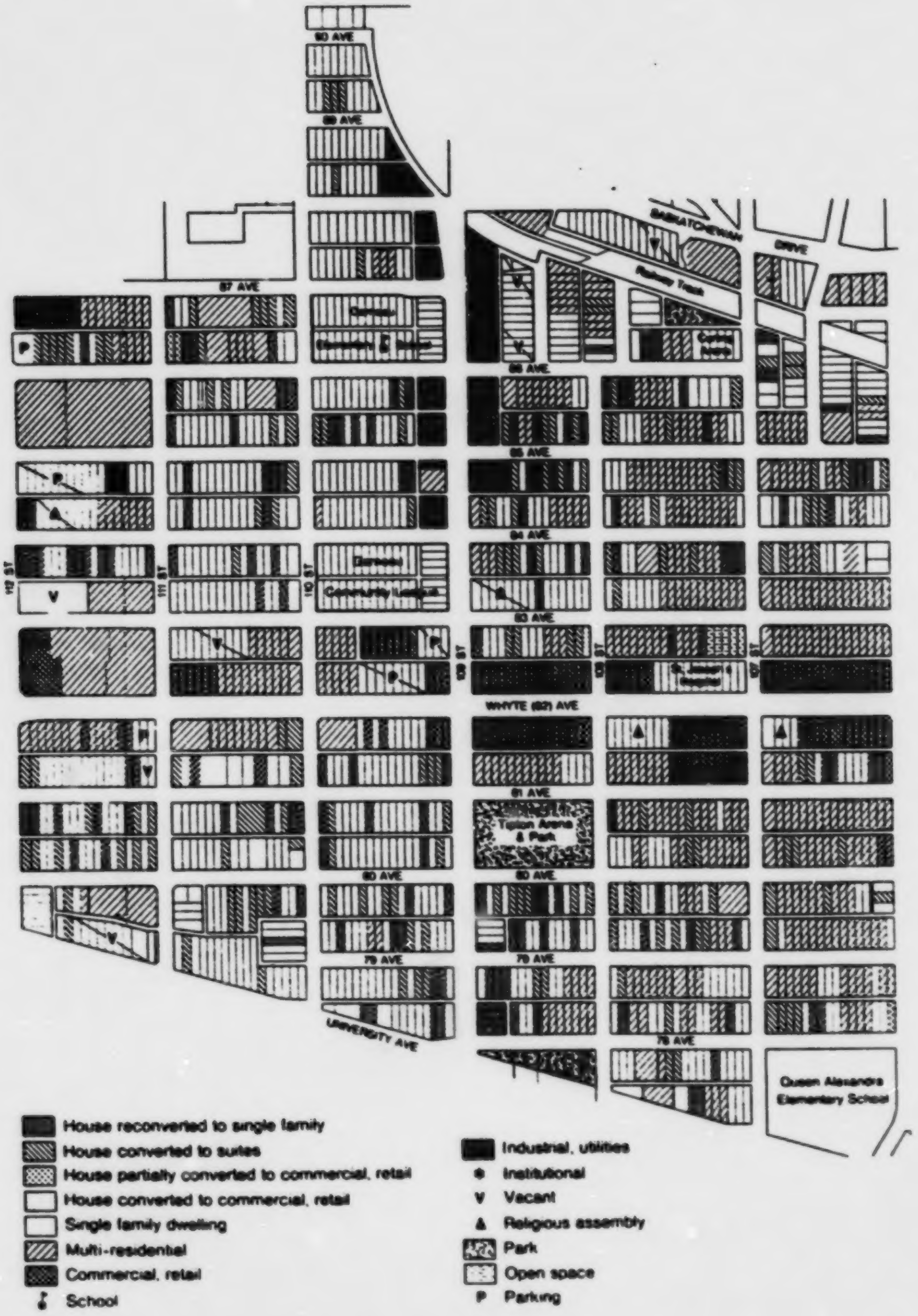

90 AVE
89 AVE
SASKATCHEWAN DRIVE
Railway Track
87 AVE
Garneau Elementary School
86 AVE
85 AVE
84 AVE
Garneau Community League
83 AVE
WHYTE (82) AVE
St. Joseph's Hospital
81 AVE
Tipton Arena & Park
80 AVE
79 AVE
78 AVE
UNIVERSITY AVE
Queen Alexandra Elementary School
112 ST
111 ST
110 ST
109 ST
108 ST
107 ST
House reconverted to single family
House converted to suites
House partially converted to commercial, retail
House converted to commercial, retail
Single family dwelling
Multi-residential
Commercial, retail
School
Industrial, utilities
Institutional
Vacant
Religious assembly
Park
Open space
Parking

Figure 13. Land Uses in Garneau in 1986

developed. East of 109th Street and north of 82nd Avenue, in what is commonly called Strathcona, and in Queen Alexandra, the area south of Whyte Avenue and east of 109th Street, house construction proceeded more slowly and was more widely scattered. In the 1930s most of the remaining lots in both North and South Garneau were built on (Windsor, 1964). Construction quickened again in the 1940s, especially after 1946. During this period most of the portions of Strathcona and Queen Alexandra included in the Garneau plan area were built up.

The houses presently standing in the area are, in the main, those built before 1950. Very little detached house construction has occurred since the 1940s, although some infilling took place between 1950 and 1959 (Figure 5). The most common type of house found in Garneau today is the bungalow, comprising more than half of the existing houses (Figure 6). Nevertheless, some of the original two-storey wood-frame houses that characterized the early development of the area are still to be found. Eighty percent of the houses in 1986 were single-family residences (Figure 7). Most of them are located west of 109th Street, although a fair number are also interspersed among the walkup apartments east of 109th Street. As in the other study areas, the great majority (74%) of the houses were in fair condition (Figure 8); in addition, 57% of them were owner occupied (Figure 9).

Like Oliver, Garneau was subject to a great deal of apartment redevelopment in the 1960s and 1970s. There were 124 apartment buildings in the area in 1986, of which 90% were walk-ups and 10% high-rises (Figure 10). It was possible to count the single-family dewllings demolished to make way for apartment buildings, by comparing air photographs taken before and after each building was constructed.

Between 1960 and 1986, approximately 421 houses were demolished and replaced with 115 apartment buildings (Unfortunately, it was not possible to calculate the number of demolitions in Oliver by this method, since air photographs at a suitable scale were not available). The high-rises were mainly located on or near 87th Avenue and on Whyte Avenue west of 109th Street, as well as on Saskatchewan Drive; most of the walk-up apartments were located east of 109th Street. The majority of the offices and shops have been drawn to similar locations on the main roads through Garneau, including 109th Street, 112th Street and Whyte Avenue, which has become one of the most popular commercial strips in Edmonton (Figure 12).

4.4 Land Use Conflict, Resident Mobilization, and the Preparation of the Neighbourhood Plans

4.4.1 Groat Estate

Beginning in the late 1950s Groat Estate began to experience development pressure as applications for rezoning increased. This pressure increased greatly in the late 1960s and early 1970s. Then, in 1968 an explosion destroyed an old apartment building (the Dunstan Apartments), opening a well situated lot that was already zoned for medium-density residential use. Developers immediately produced redevelopment proposals for the site, resulting in the earliest citizen resistance to redevelopment. The area residents began to be concerned about the acquisition of houses by development companies and individual speculators who, they believed, intended to seek rezonings and to redevelop the lots by building walk-up and high-rise apartments, in the same manner as in Oliver and Garneau, as well as in other older inner-city areas such as Queen Mary and Strathcona. It was one application in April 1974, however, that really galvanized the area residents. A development company acquired six lots on the west side of 124th Street at the junction of 102nd Avenue (Figure 4). A rezoning application was made in order to permit the construction of a commercial mall and sixteen-storey office tower. The residents of the area, particularly those who faced the prospect of living in the shadow of the proposed structure, mobilized to oppose the development. On the 4th of June 1974, the residents of 125th Street and Wadhurst Road organized the Groat Estate Residents Committee. They then circulated a petition in the area to demonstrate the residents' opposition to the proposed development, letters were written to newspapers, and their concerns were aired at city council meetings. These efforts caused the city council to request the developer to produce an alternative design. The developers came back to the city council with a proposal to construct an eleven-storey office tower, which the residents again rejected. They argued that pile driving related to the construction would damage their homes and that permitting one such development would create a precedent that would ultimately lead to the destruction of the neighbourhood. On the 13th of September 1974, city council voted to reject the development proposal. The council decision was based on the residents' opposition, reinforced by the planning department's opinion that the scheme would represent overdevelopment of the site.

In January 1975, the development company again proposed to construct a ten to twelve-storey office tower on the same site. They presented the project, in the first instance, in the form of an application to change the zoning bylaw. The amending bylaw received two readings by council despite heated opposition from residents. Throughout April 1975, the residents continued to fight against the proposal, focusing on damage to the character of the area, loss of sunlight and privacy for houses next to the new building, traffic congestion, and an inadequate number of underground parking stalls. Early in May 1975 they presented the council's public affairs committee with an 887-signature petition opposing the development. Then, on 16 May 1975, the proposed bylaw amendment was voted down on its third reading by the city council. At the same time, however, another rezoning application was received by city council, to permit construction of condominium units at 128th Street and Stony Plain Road. It was clear that redevelopment pressure would continue to grow.

A group of residents decided that if the neighbourhood was to survive it would be necessary to abandon the crisis-by-crisis style of operation in favour of a permanent organization that would take positive steps to preserve and maintain the community, rather than react to development proposals made by others. These residents formed the core of opposition to the development proposals. They were already referred to as the Groat Estate Residents Association, although they were still an informal group in January 1975. They then began a series of Sunday morning meetings at which long-range community goals were identified and strategies to help to achieve these goals were formulated. The group decided to seek city council authorization to proceed with the preparation of a community plan, and agreed to commission a community planner to advise and work with them.

An essential step for the organization was the attainment of a clear expression of community support for its actions. In February 1975, the organizers circulated a petition in the neighbourhood, to ascertain local opinion about the future of the area. The majority of the residents expressed their support for the idea of neighbourhood preservation and the preparation of a comprehensive development scheme bylaw for the area (GERA, 1975). Two other citizen groups supported the Groat Estate Residents Association, the Urban Reform Group of Edmonton (URGE) and an organization called Action Edmonton. Together they requested city council not to approve rezoning applications in Groat Estate, and to show that it was "...on the side of ordinary citizens, not the extra ordinary developer" (Edmonton Journal, 22 April 1975, p.27).

With this evidence of citizen support, the Groat Estate Residents Association prepared a brief outlining their concerns and recommendations for future planning. It was presented to city council on the 11th of March 1975, and contained five resolutions: first, that a development scheme bylaw be prepared for the area and presented to the city council within six months; second, that all residents and landowners in the area be participants in developing the bylaw; third, that a series of public hearings be held during the period the bylaw was being prepared; fourth, that the GERA be permitted to prepare a profile of the neighbourhood as part of the preparation of the development scheme bylaw; and, fifth, that no development permits be issued in the area until the bylaw was adopted (GERA, 1975). On the 13th of May 1975, city council stated that it did not possess the resources to prepare a development scheme bylaw. Instead, council approved a freeze on rezoning and recommended the preparation of a bylaw by the residents themselves. The planning department was instructed to provide the residents' group with a limited amount of administrative and technical assistance in preparing a plan for Groat Estate.

On the same date, the neighbourhood group formalized its existence, becoming fully constituted under the Provincial Societies Act. An excutive committee was elected on the 23rd of May. The organization's main objective was to preserve the single-family character of the area by preventing new commercial and apartment redevelopment in Groat Estate, although a small number of residents living in Clifton Place, south of 102nd Avenue, opposed the idea of a development scheme and requested that they be excluded. These residents felt that they should be able to sell their houses to developers if the opportunity arose. Their request was rejected.

The Groat Estate Residents Association hired a planner, Larrie Taylor, and formed a number of committees to undertake the research and organizational tasks necessary to produce a community plan. The organization held a public meeting on the 28th of May 1975, to invite all residents to join the committee or committees in which they were interested. Subsequently, a community profile was constructed detailing community concerns, objectives, resident ownership patterns, housing characteristics, and attitudes toward change and development in the area. This information was collected from a questionnaire circulated to every household and business in the area. Several planning workshops were held on July 30th and 31st, 1975, to help identify local problems, as well as to solicit comments from residents.

GERA was prepared to recognize special interest groups and one group was formed. It represented development companies and was known as the "Owners Group". It was given formal status in the plan process by the municipal planning commission, when the terms of reference for the Groat Estate plan were approved. A planning liaison committee was formed, comprised of a planning department representative and two planners, one hired by the GERA, the other by the Owners Group. Through the participation of the representatives at the workshops and in planning liaison committee meetings it was hoped that the objectives and aspirations of all interest groups would be identified.

In October 1975 a preliminary plan document was submitted to the planning department by the GERA, along with an alternative plan from the Owners Group. Both plans were circulated for review within various civic departments, and the GERA produced their final document, "A Plan for Groat Estate", in December 1975. The plans from the Owners Group and the GERA were then submitted to the city planning department for study and recommendation. A series of meetings was held between the GERA, the Owners Group, various civic departments, and the planning department in order to come to agreement about modifying and deleting some parts of the residents' proposals so that the plan would be consistent with existing civic policies. These negotiations were complete by June 22nd, 1977 when the plan was presented to residents at a public meeting. The plan was finally presented to the city council on October 14th, 1977. The council, however, refused to give the plan legal status as a development scheme bylaw. Instead, because of the possibility of needing to expand the east-west arterial roads that run through the area, as well as the pressure for the expansion of the 124th Street commercial strip, council opted to adopt the plan by resolution only, and to amend the zoning bylaw in accordance with its aims. As was explained in section 4.2.4, this meant that the plan had less legal standing than it would have had as a development scheme bylaw. In the absence of any other choice, this procedure was accepted by the GERA.

4.4.2 Riverdale

Riverdale's development history, in the post-war period, was dominated by the City of Edmonton's controversial plan to develop a park system in the valley of the North Saskatchewan River and its tributary ravines (University Practicum, 1974). This policy proposal threatened the very existence of the neighbourhood and stimulated the residents to organize to save it.

The valley park concept originated in 1907 when Frederick Todd, a landscape architect from Montreal, was contracted by the City of Edmonton to prepare a set of plans for parks and boulevards in the city. In his report, he included a recommendation that the river valley and ravines should be protected from development and used for parks purposes. Mr. Todd's recommendation was accepted in principle by the city council in 1915. Then, in 1949, the Bland Spence Sales Report on planning policies for metropolitan Edmonton recommended that a comprehensive system of parks be developed throughout the whole river valley. More important, for the first time it was recommended that further development in the valley should be prevented and that a long-term policy of acquiring existing properties in the river valley neighbourhoods be implemented. The city council of the day accepted the Bland Spence Sales Report in principle, and from 1951 development permits were to be refused in the river valley. The long-term aim was the removal of all houses and other buildings from the valley flats and their replacement with parkland. Under the shadow of this policy

Riverdale experienced both social and physical decline throughout the 1960s.

The river valley policy was formalized in 1971, when the general plan and parks master plan of that year gave legal authority to the river valley policy objectives. Existing residential land in Riverdale, Rossdale, Cloverdale, Lavigne, and Centretown was formally designated for long-term acquisition, eventual removal and conversion into parkland (Edmonton, 1974). In each of the affected neighbourhoods residents mobilized to oppose the policy. They eventually came together under an umbrella organization known as "The Society for the Preservation of the River Valley" and one of Edmonton's most notable land use conflicts began (McGibbon, 1984).

In 1973, a group of neighbourhood organizers presented a brief to the city council on behalf of the residents of Riverdale. It included four arguments for retaining the area as a residential neighbourhood:

1. The cost of buying the houses in Riverdale would be more than the City of Edmonton could afford. Riverdale represented 45% of all the housing stock designated for acquisition and 50% of the acquisition costs, estimated at over $15 million.
2. The elimination of Riverdale would destroy a significant proportion of the lower income housing in central Edmonton.
3. Riverdale had the potential to qualify for federal financial assistance under the Neighbourhood Improvement Program.
4. Riverdale represented a unique kind of inner-city neighbourhood because of its quiet and picturesque character. Its removal would clash with the planning principle of variety of choice in residential environments.

On the basis of these arguments the residents' group made three requests: first, that Riverdale be recognized as a viable community; second, that consideration be given to the construction of public housing in the area; and, third, that the city assist residents in obtaining funds from Central Mortgage and Housing Corporation for the rehabilitation of their houses. The brief presented to council was supplemented with a letter-writing campaign, directed at city aldermen and members of the legislative assembly, as well as at newspapers and magazines. In addition, a group calling itself "The University Practicum on Inner-City River Valley Land use" was organized at a public meeting in the Riverdale Community League, on the 21st of October, 1974. Representatives from Riverdale, Rossdale, Cloverdale, Lavigne, and Centretown attended. In part, this group was a response to the provincial government's entry into the river valley issue, arising from its announced intention of working in cooperation with the civic government to create a new Capital City Park in the river valley. The practicum document included an alternative land use plan that embedded the existing residential areas into an extensive park system in the valley of the North Saskatchewan River (University Practicum River Valley Study, 1974).

In the face of this evidence of growing opposition, city council authorized its own river valley study in March 1974. Its purpose was to review all the policies and issues involved in the river valley conflict and to make recommendations to council to modify the policies if necessary. An evaluation of the long-term viability of the river valley neighbourhoods was conducted as part of the study. In its findings, the study recognized that Riverdale had the greatest potential of all the river valley neighbourhoods, but it was nonetheless recommended that property acquisitions should continue through the next 20 years. The residents therefore continued to write letters of protest, while neighbourhood representatives appeared on news reports and were interviewed for newspaper articles to publicize the issue and broaden support for their aims (Edmonton Journal, 25 May and 26 October 1974). At this point, city council became divided on the issue of whether or not Riverdale should continue to be included in the river valley parkland zone. The issue was hotly contested from February until the 15th of July 1975, when city council voted in favour of excluding Riverdale, chiefly on the ground of the high cost of property acquisition. City council then instructed the planning department, in consultation with Riverdale property owners and residents, to prepare a community plan, in the form of a development scheme bylaw, for the purpose of preserving and rehabilitating the neighbourhood.

The first step toward involving the residents in plan preparation was the establishment of the Riverdale Community Planning Committee in January 1976. The committee met with City of Edmonton planning department staff on a regular basis, to advise on the preparation of the plan and to provide community reaction to recommendations made by the planning department. The residents' major contribution took the form of responses to a questionnaire administered by the local planning committee to every household in the area. This allowed planners to identify major community concerns and desired directions for future development, as well as the need for housing rehabilitation. On the 6th of December 1976, a draft of the Riverdale community plan was presented to the neighbourhood planning committee, at a meeting of the Riverdale

Community League. Subsequently, the community organizers held a public meeting to present the plan to the residents, to receive general reactions and comments before final revisions were made.

Included in the plan was a proposal to create a restricted development area (RDA), within which building would be prohibited. In an early draft of the plan the RDA was defined to include mostly open space adjacent to the North Saskatchewan River (Figure 11) and would have entailed the removal of only 12 houses. When a later draft appeared, however, the boundary had been redrawn and would have meant the removal of 128 houses. Meanwhile, the City's real-estate and housing department continued to purchase houses in the area, explaining that this was necessary to secure the removal of houses deemed unsuitable for rehabilitation, as well as to permit the assembly of land for public housing. The residents felt that, in reality, the City had not given up its aim of turning the area into parkland, and they strongly opposed the redrawn RDA boundary. It was then revised for a third time and included in the final draft, subject to its acceptance by the provincial government and city council. This time all but five houses were excluded. The Riverdale Community Plan was adopted as a resolution of council, rather than as a development scheme bylaw, on the 8th of September 1977. If the plan had been given development scheme bylaw status, the council would have been forced into identifying, exactly, the future boundary of the neighbourhood. This, in turn, would have necessitated the identification of all the houses that would still have been subject to acquisition as part of the river valley parks policy. It was therefore in the council's best interest to proceed by resolution. On the 12th of October the zoning bylaw was amended to correspond with the aims of the plan. Three months later, the provincial government and city council approved the revised RDA boundary. The threat posed by the river valley policy had been removed and attention was turned to the issue of revitalizing this rundown but still viable community.

4.4.3 Oliver

Before 1960 there were no highrise apartments in Oliver, but as Edmonton's population grew in the 1960s, the demand for rental accommodation located close to the central business district and provincial government centre grew as well. Land values increased in Oliver, some residents sold their properties to developers, benefiting from the increased selling prices, and apartments began to replace the original houses (McCann, 1969). By 1973 there were 55 high-rises and 84 walkup apartments in Oliver, all constructed after 1960. In addition, various business uses and industrial redevelopment were spreading west along Jasper Avenue from the direction of the central business district (Bannon, 1966). This extensive redevelopment dramatically changed the character of the neighbourhood and threatened to overwhelm it.

In the early 1970s, residents of Oliver became involved in a protracted battle over the control of development. The two main combatants were the Community of Oliver Group (COG) and the Committee for Responsible Oliver Development (CROD). The latter organization was formed by a group of residents who were in favour of apartment redevelopment, due to their desire to profit from the sale of their properties to developers. COG, on the other hand, was in favour of the preservation of the remaining houses, to maintain the family community atmosphere to the extent that was possible given the amount of redevelopment that had occurred already. COG grew out of the rump of an organization called the Oliver Social Action Committee (OSAC), which had been formed in the late 1960s to try to combat problems arising from the increasing pressure of redevelopment. It acted as an advisory service for residents interested in organizing to oppose development proposals. In 1974, an attempt was made by OSAC to demonstrate to the residents, as well as to city council and city planners, that Oliver was still viable as a family residential community and that there were alternatives to wholesale redevelopment (Parnell, 1974). To this end they called for the preparation of a comprehensive plan that would control development and retain at least some of the area for older single-family houses (*The Oliver Bulletin*, 5 November 1984). Between 1974 and 1977 the pro and anti development groups continued to fight for or against specific development proposals for high-rise apartments.

In 1977, it was recommended in the *Older Neighbourhoods Study* that Oliver should be the subject of an area redevelopment plan (Edmonton, 1977). Subsequently, a planning study was carried out. It divided the area into six distinctive districts, including a high-rise area, commercial areas, and single-family housing and walkup apartment districts. This study marked the beginning of the process of preparing the Oliver area redevelopment plan.

In late 1978 and early 1979, COG organized a number of workshops as a way of involving local residents more actively in planning their neighbourhood. For this purpose, they divided it into quadrants, with Jasper Avenue and 116th Street acting as the dividing lines (Figure 12). Workshops were held in each quadrant, spread over ten meetings, with a total of 125 people attending. Various planning issues were discussed, including the need to protect and enhance family housing, to reduce traffic flows through residential streets, and to control the conversion of houses to business uses. COG then produced a planning newsletter, outlining the issues raised at the workshops and the types of development that would be acceptable to residents, property owners, and businessmen in the area.

An architectural consultant, Barton Myers, was also appointed by the city in 1978 to conduct a study of alternatives to highrise development in inner-city districts, including Oliver and Garneau. A committee of representatives from the neighbourhoods being studied, from the development industry, and from the planning department, was formed to work in cooperation with the consultant. The report they produced, which was presented to city council in November 1978, recommended a more diverse mix of housing types in the area and presented examples to show how high densities of development could be achieved through the construction of low-rise buildings, such as row-houses, stacked townhouses, and duplexes (Myers, 1978).

In 1980, another planning workshop held by COG resulted in the production of a community plan proposal for Oliver (COG, 1980). It was COG's intention that this would represent the major citizen contribution to the official plan preparation process. The community plan proposal recommended a greater mix of types of people and buildings in Oliver, adopting the ideas put forward in the Myers study, and integrating them with the preservation and rehabilitation of existing houses. At the same time COG requested that development be halted until a plan was approved, but that request was refused. Meanwhile, the planning department produced its own study of Oliver, in the form of an area redevelopment plan background report (City of Edmonton, 1980). It provided a description of existing land use, population characteristics, and street and traffic conditions, as well as an interpretation of development trends in the previous three years. Then, early in May 1981, the Oliver area redevelopment plan was presented to city council as a proposed bylaw. The Community of Oliver Group responded favourably to the plan because it incorporated many of their ideas, including controls on high-rise redevelopment and support for the construction of row-houses, town-houses and the like. The proposed bylaw was given third reading, and the plan was finally approved, in September 1981.

4.4.4 Garneau

In the late 1950s the University of Alberta accelerated its building program and made plans to expand into the northern portion of North Garneau, adjacent to its eastern boundary. By 1962 it was the University's intention to acquire all the land in the area bounded by 87th Avenue, Saskatchewan Drive, 110th Street and 112th Street (Figure 13). Individual properties were purchased by the University as they came up for sale and many were demolished to make way for new buildings and parking lots. The residents began to regard the University as a source of disruptive redevelopment pressure. In addition, the University Hospital (later expanded and renamed the Walter C. MacKenzie Health Sciences Centre) served to attract medical practices and various health-related businesses to Garneau.

In 1963 city council zoned the area between 109th and 112th Streets, from 82nd Avenue to 87th Avenue, for commercial and high-rise apartment uses. Almost immediately, construction began on a five-storey medical office building, as well as a number of apartments. This redevelopment caused the demolition of many houses in the area. At the same time, that portion of the Garneau plan area lying between 106th and 109th Streets, north of 82nd Avenue, was zoned to permit the construction of low-rise apartment buildings, together with some high-rise development along Saskatchewan Drive, overlooking the river valley (Jackson, 1977). Development pressure was also created by the Metropolitan Edmonton Transportation Study of 1963. This proposed that a freeway be constructed south from a new high-level bridge, between 109th and 110th streets, eventually to join 109th Street at 72nd Avenue. The proposal would have entailed the destruction of a great many houses in Garneau, changing the character of the area dramatically. Eventually, the transportation plan was abandoned but, together with continuing apartment construction, it had demonstrated how the neighbourhood could be disrupted by redevelopment. As a result, some opposition surfaced, although it was usually directed at specific apartment redevelopment proposals rather than the broader issue of preserving the neighbourhood. It was not until the early 1970s that opposition to redevelopment became well organized around the aim of having a Garneau plan.

In 1975 a residents' planning committee was formed to represent Garneau in negotiations over planning and development issues with city council, planners, landowners, institutions such as the University, and developers. The committee's function fell into three areas. The first involved the collection of information, the organization of public meetings, and an attempt to determine principles by which a neighbourhood planning process satisfactory to the residents should be governed. Resident involvement was featured as a central principle of neighbourhood planning. The second function was a watchdog one, meaning that the committee reviewed development proposals affecting the neighbourhood, vigorously opposing those considered to be inappropriate and supporting those that appeared to be beneficial. The third function was to secure official sanction for a neighbourhood planning process (Jackson, 1977). In the period since the Garneau plan came into force, the committee has continued to pursue the first two responsibilities.

The specific issue that prompted the formation of the Garneau planning committee was a proposal in 1974 to turn two residential streets, 86th and 87th Avenues, into a one-way arterial couplet. The committee opposed the proposal because of fears that it would cause an increase in traffic volume and noise, and would encourage apartment redevelopment at the expense of single-family housing. They decided that opposition would continue until city council ordered the preparation of a neighbourhood plan that would help control development (Edmonton Journal, 13 September 1974). A community league meeting, open to the general public, was held and it was decided that a brief would be submitted to city council. Subsequently, all transportation developments in the university area were halted and a major study of transportation issues was undertaken. Two members of the Garneau planning committee sat on the advisory committee for the study.

The planning committee's central aim was to preserve the physical character of Garneau. Its first tasks were to establish its credibility as the legitimate voice of the community on planning matters, and to counteract the residents' feeling that they were powerless to influence the planning decisions affecting them (Jackson, 1977). To these ends, the group conducted a survey of residents in the neighbourhood.

Household characteristics and concerns were identified and the opportunity was taken to acquaint people with the issues of redevelopment and neighbourhood preservation. In its turn, this aroused further interest and helped establish the committee's credibility. The committee then identified a number of external development pressures on Garneau, including the growth of the University and University Hospital; increased high-density residential development in the form of high-rise apartments; increasing use of residential streets by through traffic and non-residential parking; and the location of Edmonton's second rapid transit line. The results of the survey were presented to the residents at several public meetings.

Between 1974 and 1977 the Garneau planning committee was involved in at least eight major development proposals, and launched several appeals to the Development Appeal Board on behalf of owners adjacent to the proposed development sites. These appeals required considerable effort in the form of petitions, public meetings, preparation of briefs, and many hours spent at city hall, as well as the expense of hiring legal counsel. In one case, the Development Appeal Board refused to permit the construction of a seventeen-storey, 81-unit condominium at 11027-87th Avenue. The board agreed with the Garneau committee that it would increase traffic problems, destroy neighbourhood spirit, and clash with other houses on the block (Edmonton Journal, 24 November 1976). Yet efforts of this kind did not guarantee success. In September 1976, for example, the appellate division of the Alberta Supreme Court refused to allow an appeal against a proposal to build a high-rise apartment at 11044-86th Avenue, opening the way for the development to begin. In other cases, by contrast, legal action was not necessary because the neighbourhood planning committee was able to persuade developers to change their proposals. In one case a developer was successfully convinced by the residents' group that building six townhouses would provide him with the same return as an apartment building and would be acceptable to the community. The development was approved without controversy. Still, the majority of development conflicts involved bitter confrontations that were expensive and time-consuming for all parties involved. The Garneau planning committee thus continued to call for the preparation of a neighbourhood plan, as a way of avoiding conflict.

In 1975, the planning committee made a presentation to city council, stating that a more orderly and comprehensive planning approach was necessary for Garneau, one that would more effectively address the concerns of the residents. City council agreed and in the Older Neighbourhoods Study of 1977 Garneau was identified as requiring immediate attention in the form of a community plan. The Garneau planning committee then sought permission to prepare its own plan, in a manner similar to the Groat Estate Residents Association, but this request was rejected by the city council and planning department. The civic administration retained responsibility for the preparation of the Garneau plan, in part out of a desire to avoid the delays and prolonged discussions that had been associated with the Groat Estate case. It is also likely that the planning department wished to avoid setting a precedent that could have led to an avalanche of demands from other neighbourhood groups, all claiming the right to prepare their own plans.

The plan process began in July 1977, when a planner was assigned to Garneau. The aim was to have a plan in place a year later. Almost immediately, Garneau was the subject of numerous development proposals as developers rushed to have their projects approved before any plan came into force. Between November 1977 and December 1978 six new buildings were started in the area bounded by 110th and 112th streets, north of 82nd Avenue. Most of these were expensive condominium complexes, prompting the University Students' Union to join with Garneau residents in criticizing the removal of affordable housing for students and others (Edmonton Journal, 19 December 1977).

In addition, Garneau, like Oliver, was included in Barton Myers' study of alternatives to high-rise development, and his findings were to be incorporated into the plan. As a first step, the consultant met with Garneau residents at a public meeting in the Community League Hall in October 1978, and outlined the opportunities that were hypothetically available for development, other than high-rise construction. The Garneau planning committee was impressed with this initial presentation and one of its members, Anne DeVillars, represented Garneau on the consultative committee formed to assist Myers (Edmonton Journal, 11 October 1978). The final report recommended a transition from high-rise buildings at the edge of Garneau on 112th Street to single-family residences in the body of the area to the east (Myers, 1978).

Further community participation in the preparation of the plan took the form of responses to questionnaires and attendance at public meetings. The plan process took much longer than expected. Between the winter of 1979 and the spring of 1981, when the plan went to council for its first reading, redevelopment conflicts continued, prompting the neighbourhood planning committee to call for a moratorium on development decisions by the planning authorities. Despite this effort, development proposals continued to be placed before city council. Garneau residents began to protest against what they perceived to be city mismanagement in delaying adoption of the plan, stating that the extra time was allowing developers to continue to assemble land and to exert pressure on residents through fear of redevelopment (Edmonton Journal, 18 February 1981). A seige mentality was created in the area in 1981, especially after the Development Appeal Board approved construction of yet another high-rise on 83rd Avenue between 110th and 111th Street, despite a 400 signature petition opposing it. Adoption of the plan was further delayed when thirty-eight delegations were given the opportunity to appear at a public hearing in March 1982. At that time, the Garneau Community League expressed satisfaction with the plan because it permitted some development while preserving the remaining older housing. Twenty-five property owners were opposed, however, because their land faced downzoning to medium density residential use, potentially reducing their ability to profit from sales to developers. City council gave first reading to the plan and referred it back to the planning department to consider the concerns that had been raised at the hearing (Edmonton Journal, 25 March 1982). Throughout April and most of May 1982 the conflict between supporters and opponents continued, but on the 25th of May 1982, council gave third reading to the plan by-law and approved it for implementation. Council agreed with the Garneau planning committee that the plan represented the interests of the majority of residents and should not be undermined by a small minority. At about the same time, the University of Alberta began to renovate many of its houses in North Garneau. These were outside the boundary of the area redevelopment plan, but the University's actions nonetheless contributed to a spirit of rehabilitation in the area.

4.5 The Land Use Districts Applied to the Study Areas in the Plans

4.5.1 Groat Estate

The land use districts applied to Groat Estate under its neighbourhood plan originated in the 1961 zoning bylaw (Figure 14). In addition, the portion of the 124th Street commercial strip that was included in the community plan area was designated a development control area under the existing land use classification guide (see section 4.2.2).

The general purpose of the R1 district was to permit the development of detached single-family housing. This category was applied to much of the existing housing in Groat Estate, particularly in the central and northwestern portions of the neighbourhood, to preserve their low-density residential character. RC1 was a residential conversion district, permitting the addition of rental units to single-family dwellings, as well as the construction of duplexes and, where lot sizes were large enough, fourplexes, to allow for the replacement of severely dilapidated houses. The new structures, however, were required to blend into the existing streetscape. Much of the northeastern portion of the neighbourhood was zoned RC1, in recognition of fact that suite conversions had been occurring there for many years. In addition, the RC1 district was used to down-zone an area that had been previously zoned for medium density apartment development. This was a strip fronting 107th Avenue, where only two small walkup apartment buildings had been constructed by 1977. It was therefore decided to change the

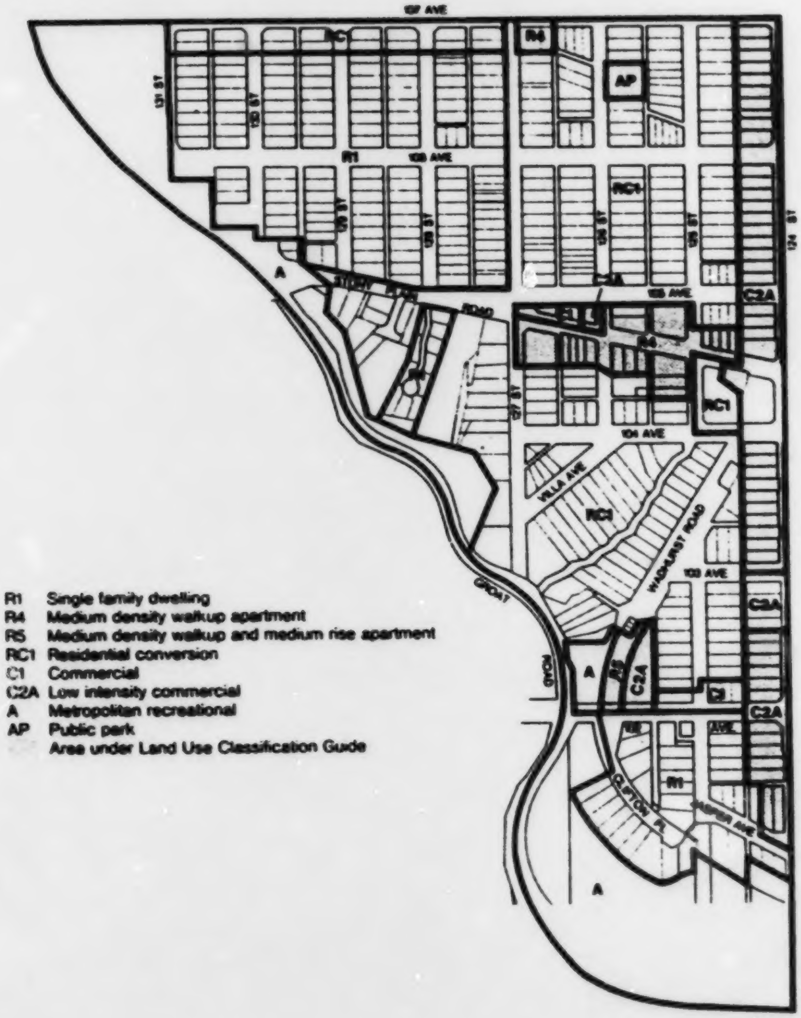

107 AVE
131 ST
130 ST
RC1
R4
AP
R1
106 AVE
RC1
124 ST
A
STONY PLAIN ROAD
C2A
105 AVE
C2A
R4
RC1
104 AVE
VILLA AVE
RC1
WADHURST ROAD
103 AVE
GROAT
C2A
ROAD
A
R5
C2A
C1
C2A
R1
CLIFTON PL
JASPER AVE
A
R1 Single family dwelling
R4 Medium density walkup apartment
R5 Medium density walkup and medium rise apartment
RC1 Residential conversion
C1 Commercial
C2A Low intensity commercial
A Metropolitan recreational
AP Public park
Area under Land Use Classification Guide

Figure 14. Zoning Districts Under the Groat Estate Plan

district to allow for retention of the existing houses, but to facilitate the construction of duplexes or fourplexes in the future. The use of the RC1 land use zone reflected the plan objective of providing moderately priced housing for a mix of social groups, including renters.

The R4 residential district permitted the construction of walkup apartment buildings and boarding or lodging houses, of four storeys or less, as well as family housing. The R5 district was similar, although apartments could be up to six storeys in height. In Groat Estate, R4 zoning was used to restrict the height of any new apartments that might be built on Stony Plain Road and to try to prevent problems of shadowing for residents in adjacent single-family houses. This also reflects the plan objective of providing a variety of housing, but at a scale that did not conflict with the existing character of the neighbourhood.

The C1 district was designed to permit small scale neighbourhood commercial development in the form of shops, restaurants and personal services. It was applied to the commercial developments that had been built on the main roads through the neighbourhood. The 124th Street commercial strip, which had been classified as a development control area under the land use classification guide, was rezoned as a C2A district. This permitted low-density commercial development up to three storeys in height, in the form of various personal services, shops and offices. Future commercial development would be permitted within these zones but not elsewhere in the neighbourhood, in order to prevent erosion of the housing stock through commercial conversions and redevelopment.

The A and AP districts designated land for parks and recreational uses. The former is a metropolitan recreational district, which was usually applied to the river valley and ravines in Edmonton; in this case, it was applied to the edge of the Groat Ravine, where it forms the western boundary of the neighbourhood. The AP district is used to designate public parks in residential areas and was used to allow a site, previously zoned RC1, to be turned into a park.

When the Edmonton land use bylaw was adopted in 1980, the districts were changed to their new equivalents: for example, the R1 zone was changed to RF1; RC1 became RF3; R4 was changed to RA7; and R5 became RA8. The low intensity business use district, C2A, was modified to become CB1; and C1 became CNC. New land use districts were applied in two cases: one involved the redistricting of a site on 126th Street between 104th Avenue and Stony Plain Road, from RC1 to DC2; the other involved the redistricting of the residential enclave located on 125th Street between Jasper Avenue and 102nd Avenue, from R1 to DC5, a site specific direct control district (Figure 14).

4.5.2 Riverdale

The bulk of Riverdale was zoned RC1 before the community plan was introduced in 1977. In the main, this district was retained (Figure 15). By the time the plan was approved, a number of duplexes had been constructed - duplexes being permitted uses in an RC1 district. This reflected the renewed confidence that was shown in the area when it became clear that it was to be exempt from the City's river valley policy. The zone represented a compromise between the plan objective of preserving the low-density residential character of the area and the need to permit slightly higher density infilling to replace the often small and dilapidated cottages that characterized the neighbourhood.

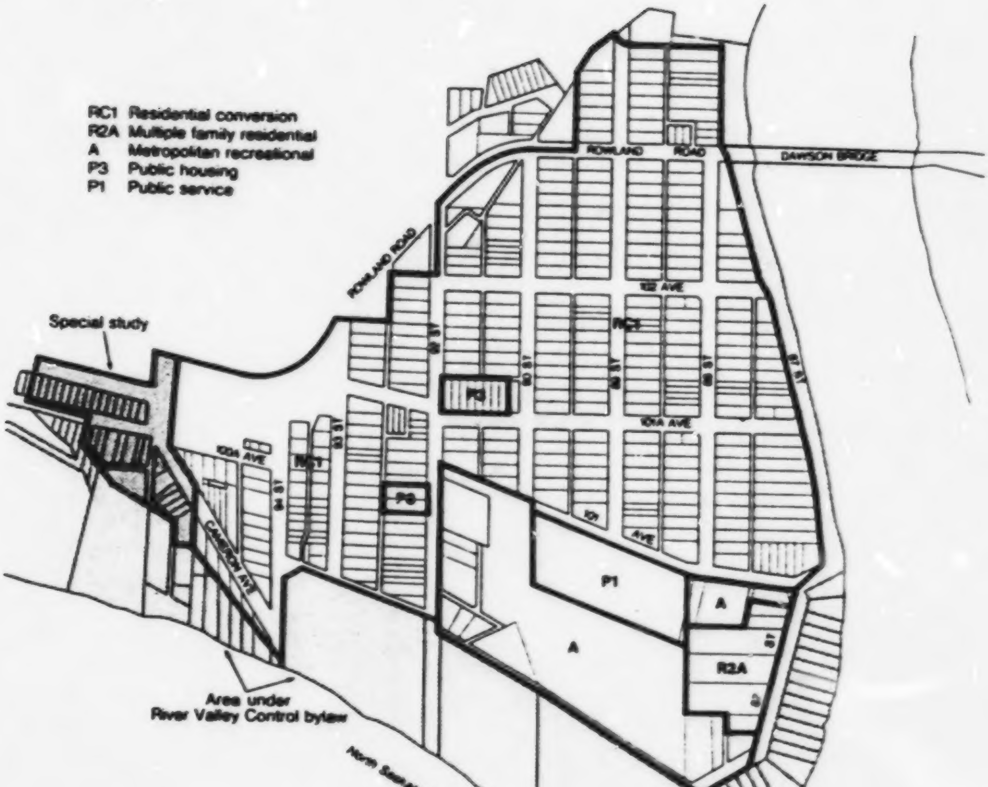

RC1 Residential conversion
R2A Multiple family residential
A Metropolitan recreational
P3 Public housing
P1 Public service
ROWLAND ROAD
DAWSON BRIDGE
ROWLAND ROAD
102 AVE
RC1
P3
101A AVE
101A AVE
RC1
P3
101 AVE
P1
A
A
R2A
CAMERON AVE
Special study
Area under
River Valley Control bylaw
North Saskatchewan River

Figure 15. Zoning Districts Under the Riverdale Plan

Another objective of the Riverdale Plan was to encourage a mix of family housing. With this in mind, the site of a cooperative housing project was zoned R2A. This permitted the construction of semi-detached and terraced houses, which were later built.

The RC1 districting was removed from some lots in the neighbourhood and replaced with the P3 district, to designate the future sites of publicly-owned houses. The City of Edmonton later built non-profit housing on them. The Riverdale Elementary School was zoned P1, the district that permitted the use of land for various public services, such as schools or utility buildings.

The western extremity of the neighbourhood was set aside for special study. This area had formerly been under the control of the land use classification guide and zoned R5, permitting the construction of walkup apartments, although only two small units were built. Most of the site was vacant (Figure 11) and its future continues to be uncertain today. It lies at the top of some very steep ground and might one day be needed for bridge approaches. The remainder of the neighbourhood, including the J.B. Little brickyard land, had also been included under the land use classification guide but was zoned A, the metropolitan recreational district. Under the Riverdale plan, the bulk of the brickyard land remained in the A district, while the land adjacent to the North Saskatchewan River was turned over to the control of the City's proposed river valley bylaw, as well as the provincial government's Capital City Park plan.

As in Groat Estate, the land use districts were changed to their new equivalents under the 1980 land use bylaw. Thus, the RC1 zone was changed to RF3, the R2A and P3 zones became RF5, and the P1 zone became

US. The site designated for special study in the plan was rezoned RA8, permitting apartment buildings up to six storeys, while the brickyard remained zoned for parkland (Figure 15).

4.5.3 Oliver

By 1981, when the Oliver area redevelopment plan was approved, the neighbourhood had undergone a great deal of redevelopment in the form of high-rise and walk-up apartments and condominiums, offices and shops. The land use districts applied to the area under the plan and the land use bylaw reflected an attempt to accommodate existing land uses while controlling future development.

Medium and high density housing districts dominate residential land uses in the area (Figure 16). The RF6 district was widely used to provide for the development of medium-density family housing in the form of stacked townhouses and terraced houses. Medium-density walkup apartments were accommodated by the use of the RA7, low-rise apartment district. In the main, these forms of development are today located to the north of Jasper Avenue (Figure 12).

Medium-rise apartments - that is, buildings up to six storeys - were zoned RA8. This district was widely applied in Oliver, reflecting the extent to which the area had been redeveloped by 1981. High-rise apartments and condominiums are located adjacent to Jasper Avenue and close to the top of the bank of the North Saskatchewan River; they were zoned RA9.

The land use bylaw also provided for the creation of direct control districts, to ensure sensitive control over the design, use and siting of development in areas of unique character. Two direct control

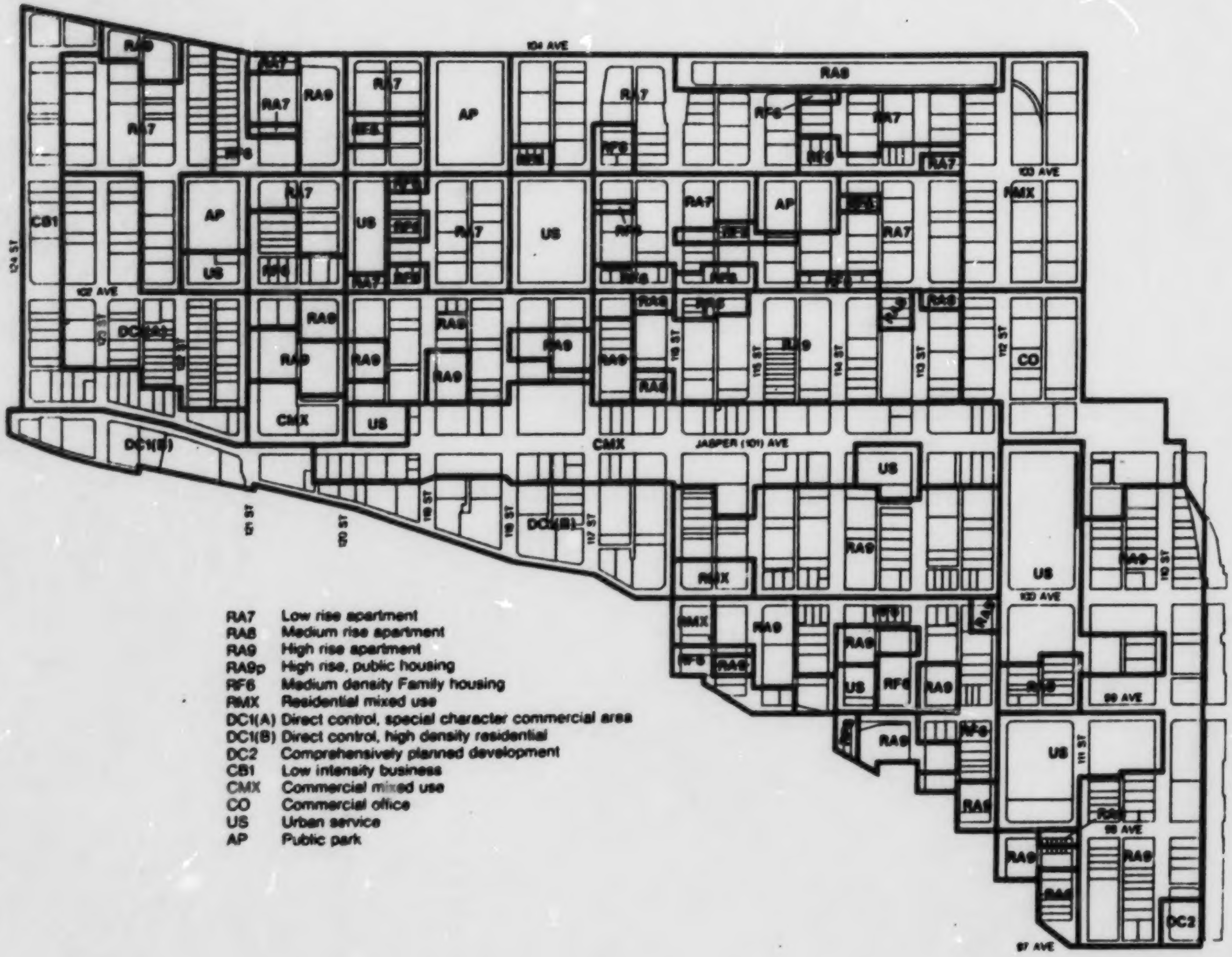

104 AVE
103 AVE
102 AVE
JASPER (101) AVE
100 AVE
99 AVE
98 AVE
97 AVE
124 ST
121 ST
120 ST
119 ST
118 ST
117 ST
116 ST
115 ST
114 ST
113 ST
112 ST
111 ST
110 ST
RA7 Low rise apartment
RA8 Medium rise apartment
RA9 High rise apartment
RA9p High rise, public housing
RF6 Medium density Family housing
RMX Residential mixed use
DC1(A) Direct control, special character commercial area
DC1(B) Direct control, high density residential
DC2 Comprehensively planned development
CB1 Low intensity business
CMX Commercial mixed use
CO Commercial office
US Urban service
AP Public park

Figure 16. Zoning Districts Under the Oliver Plan

districts were created in Oliver. For the purpose of locating them on Figure 16, they are called DC1(A) and DC1(B). A portion of the area north of Jasper Avenue, between 121st Street and 124th Street, was classified DC1(A) to permit the establishment of a commercial district of special character. Within this district various kinds of businesses were permitted, including specialty retail establishments, such as art dealerships, galleries, boutiques and bookstores, together with various personal services, convenience shops, restaurants and professional business services. The businesses were required to be small scale and, where possible, located in existing houses converted into business premises. In addition, new buildings were required to look like the single detached houses common in Edmonton in the 1920s, to preserve the appearance of an old, low-density residential neighbourhood. This district was created to accommodate and control a process of commercial conversion that was already underway. By 1979, 14 houses had been converted for business purposes in this portion of the neighbourhood (Edmonton, 1981).

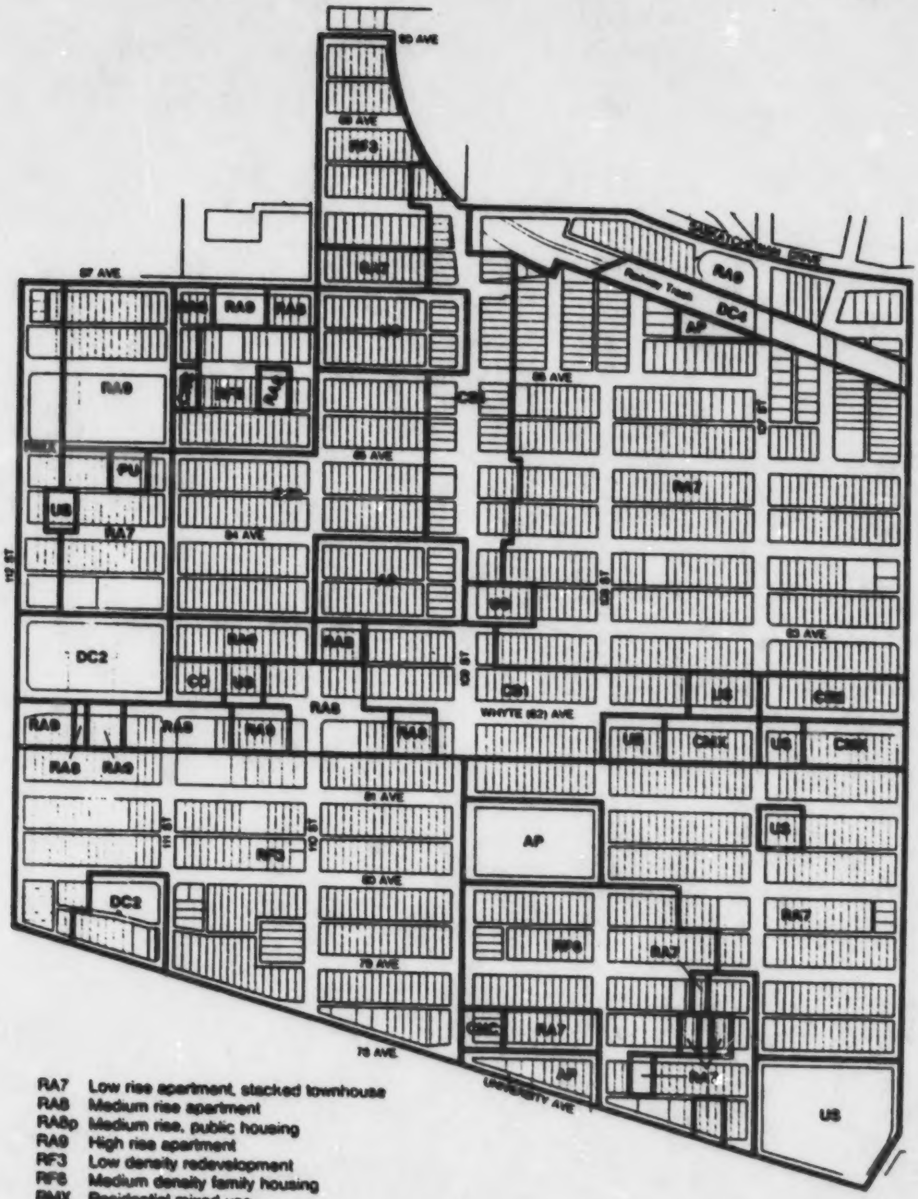
The second direct control district, DC1(B), is the area of high-rise apartments that line the top of the river bank, between 116th Street and 124th Street. Here, development proposals were to be considered on their merits. The regulations governing site coverage, setbacks, yard requirements, and height were intended to be used to minimize shadow effects, to protect the privacy of the residents in existing buildings, and to ensure equal access to views of the river valley.

The major commercial strip through Oliver is Jasper Avenue. Most of this frontage was zoned CMX, meaning commercial mixed use. This zone permitted the construction of high-rise apartment buildings containing shops and offices on the ground floor. A number of such buildings had already been built on or adjacent to Jasper Avenue before the Oliver plan was approved. The north side of the avenue, between 121st Street and 124th Street, was zoned CB1, to accommodate the establishment of low-density business uses. Shops, personal services, banks, restaurants, medical practices and the like were permitted in this district, providing they were in keeping with the scale and needs of the surrounding residential area.

Commercial and residential land uses were combined in the RMX, residential mixed use district. The northeastern part of Oliver comprises a mix of light industrial uses, and some shops and offices, along with vacant land that is used for parking. Under the RMX designation future development is to take the form of apartment buildings containing commercial uses on the ground floor. Adjacent to this district, between Jasper Avenue and 102nd Avenue, a medium-intensity office district was created, to accommodate existing offices and to permit further office development close to Jasper Avenue, a major route into the CBD.

4.5.4 Garneau

Three direct control districts were created in Garneau, under its area redevelopment plan. The first, a DC1 district, lay north of 83rd Avenue between 109th Street and 111th Street, and was comprised of older detached single-family houses (Figure 17). These houses were regarded by the residents and planners as architecturally interesting and as contributing to variety in the urban landscape. The creation of the


90 AVE
89 AVE
RF3
Saskatchewan Drive
RA9
Railway Track
DC4
AP
87 AVE
RA8
RA9
RA8
RA8
RF6
86 AVE
CB2
RMX
PU
85 AVE
RA7
US
RA7
84 AVE
112 ST
US
109 ST
83 AVE
DC2
RA8
RA8
CD
US
RA8
CB1
US
CB2
WHYTE (82) AVE
RA9
RA9
RA8
RA9
US
CMX
US
CMX
RA8
RA9
81 AVE
111 ST
110 ST
RF3
AP
US
80 AVE
DC2
RA7
RF6
RA7
79 AVE
CNC
RA7
78 AVE
AP
UNIVERSITY AVE
RA7
US

RA7	Low rise apartment, stacked townhouse
RA8	Medium rise apartment
RA8p	Medium rise, public housing
RA9	High rise apartment
RF3	Low density redevelopment
RF6	Medium density family housing
RMX	Residential mixed use
DC1	Direct development control
DC2	Comprehensively planned development
DC4	Direct control, CPR line
CB1	Low intensity business
CB2	General business
CNC	Neighbourhood commercial convenience
CMX	Commercial mixed use
US	Urban service
PU	Public utility
AP	Public park

Figure 17. Zoning Districts Under the Garneau Plan

district was consistent with the plan objective of ensuring that low-density family housing was retained and rehabilitated. To this end, the existing houses were defined as the desired land use, although infill in the form of duplexes, row-housing and small four-unit apartments was acceptable if the design was compatible with the style and scale of existing houses (Edmonton, 1982).

A small area in the southwestern corner of the neighbourhood was zoned DC2, providing direct control of major, comprehensively designed developments (Edmonton, 1979). In this case, a low-rise condominium complex and a Victorian style row-house development have been built. They were accepted by the neighbourhood planning committee, as well as the city council and planners. This was consistent with the objective of promoting medium density low-rise family housing. A second DC2 district was applied to an existing high-rise complex at the corner of 82nd Avenue and 112th Street; it includes two apartment buildings and an office tower, plus personal services, a restaurant and convenience shops.

A temporary holding district (DC4) was applied to the Canadian Pacific railway right-of-way, on the northern edge of the neighbourhood. This classification was used to defer development on land for which a particular use was desired in the future. In fact, at the time the plan was approved, it was expected that the LRT system would be extended to the south side of Edmonton by way of the existing CP track. A station was then planned for 108th Street. At a later date, however, it was decided to build a new bridge and re-route the LRT underground across the University campus to the west of Garneau.

Reflecting the objective of protecting the low-density family housing character of the area, the RF3 district was used to ensure that development was limited primarily to single-family housing. Sensitive infill development was to be permitted, but limited to duplexes. In addition, houses that were built before 1962 could be converted into two-family units. At the discretion of the development officer, fourplexes, or terraced housing in rows of up to four units, could be constructed as well. The RF3 district has been applied to the portion of Garneau that is south of 82nd (Whyte) Avenue, between 109th Street and 112th Street, and is characterized by a mix of older houses and some 1950s infill development (see Figure 13).

Provision was made for medium density, multiple-family housing by the use of the RF6 district. Terraced housing and stacked townhouses were permitted, together with some small neighbourhood shops and services as discretionary uses. This district has been applied to a part of Garneau south of Whyte Avenue, between 107th Street and 109th Street, which is comprised of single-family housing and small walkup apartment buildings. While it was expected that the bulk of the houses would be retained, the zone provides the opportunity for controlled redevelopment at higher densities.

Garneau had undergone a great deal of redevelopment by 1982, when its area redevelopment plan was approved. Much of that redevelopment, particularly to the east of 109th Street, was in the form of walkup apartment buildings. These were accommodated in the RA7 land use district, which permits low-rise apartments, lodging houses and fraternities. In addition, one of the plan objectives was to encourage the construction of stacked townhouses and row housing, as a way of breaking the monotony of the streetscape created by the numerous existing walk-up apartments. Only one stacked town-house complex has been built, however, on 108A Street, north of 86th Avenue (see Figure 13).

Higher density, medium-rise apartment buildings were permitted in the RA8 district. This was used to zone part of Whyte Avenue and 87th Avenue west of 109th Street, to accommodate some existing buildings, but also to permit future redevelopment on sites then occupied by houses. Only one apartment building has been built, on Whyte Avenue at 110th Street, so there is potential for more development there. The construction of stacked townhouses and apartments up to six storeys was regarded as one way of permitting higher densities of development, without the severe shadow effects and conflicts of scale that are imposed on adjacent houses by high-rise apartment buildings. Provision was made for the development of medium-rise public housing under the RA8(p) district. Existing high density, high-rise development on Saskatchewan Drive, Whyte Avenue and 87th Avenue was zoned RA9. There has been no high-rise construction in the neighbourhood since 1982.

Some existing convenience shops, personal services and offices were permitted in the residential portions of the neighbourhood by the use of the CNC district. However, no further development of this kind was to be encouraged and houses were not be converted into shops or offices. Provision was made for existing small-scale office development by use of the CO district, but it was applied to one site only, on Whyte Avenue west of 109th Street.

The commercial strips formed by Whyte Avenue, 109th Street and 112th Street, were subject to CB1, CB2, CMX and RMX land use districts.

CB1 was a low intensity business district, designed to permit the development of small shops, services, restaurants and offices that serve adjacent residential areas. CB2 was a general business district which permits a slightly larger scale of general commercial development. These categories were used to accommodate existing businesses and to ensure that the low-rise, pedestrian oriented character of Whyte Avenue and 109th Street was maintained. CMX refers to a commercial mixed use development. It was used to accommodate the development of high-density commercial uses, together with residential and/or light industrial uses. The district was applied to two sites on Whyte Avenue that are used as car showrooms. It is hoped that small pedestrian oriented shops will replace these showrooms in the future.

The western boundary of Garneau, north of Whyte Avenue, is formed by 112th Street. This portion of the neighbourhood was substantially redeveloped by 1982, with the construction of mixed use high-rises and some purpose-built office buildings. To accommodate this and to encourage future development, a residential mixed use (RMX) district was created. No new construction has been undertaken, however, since the Garneau plan was approved in 1982. The purpose of the commercial zones was to achieve the plan objective of preventing encroachment by commercial land uses upon the residential portions of the neighbourhood, while, at the same time, facilitating further development on the established commercial strips.

5. Data Analysis

5.1 Introduction

The various types of "hard" data are analysed in chapter 5, to provide the basis for answering the first four research questions. First, however, economic and social trends in Edmonton between 1971 and 1986 are examined to establish the general context within which the research data, assembled from the assessment record and the Census of Canada, must be interpreted. Following this contextual information, the material is organized to correspond with the order in which the research questions were presented in chapter 3.

5.2 Economic and Social Trends in Edmonton 1971-1986 (Table 1)

The discovery of large reserves of oil in Alberta laid the foundations for the province's economic growth and prosperity after World War Two. Between 1946 and 1971, the population of Alberta doubled, with Edmonton and Calgary becoming the fastest growing cities in Canada (Barr, 1984). That growth continued over the next decade, as the population of the Edmonton metropolitan area increased from 496,014 in 1971 to 657,057 in 1981. Almost one-third of this increase resulted from in-migration which had an immediate stimulus on housing demand. That, in turn, was reflected in substantial increases in housing completions, as well as in the value of residential building permits between 1976 and 1979. Demand was particularly intense in the rental housing market, especially between 1974 and 1981, when apartment vacancy rates never rose above 1.9%.

Year	Metropolitan Edmonton population	Net migration	Total housing completions	Apartment vacancy rate %	Residential building permit values in millions ($ 1981)	Downtown office vacancy rate %	World oil prices US $/barrel	Unemployment rate %	Prime interest rate %
1971	496,014	- 759	N/A	N/A	241.0	2.5	2.29	5.2	5.5
1972	505,800	- 443	7,484	7.6	206.3	1.1	2.48	5.1	6.0
1973	515,600	- 1,848	7,109	5.3	163.1	1.0	5.04	4.7	7.7
1974	527,800	1,221	5,510	0.8	138.6	3.4	11.25	3.1	10.8
1975	540,500	5,054	3,504	0.3	326.8	1.6	11.25	4.0	9.4
1976	554,228	4,698	6,663	1.0	467.0	2.4	11.50	4.0	10.0
1977	568,700	1,427	10,980	0.1	554.1	10.2	12.70	4.3	8.5
1978	582,000	8,056	13,574	0.8	620.9	6.2	15.00	4.7	9.7
1979	598,995	8,874	12,641	1.9	485.3	3.1	28.75	3.7	12.9
1980	616,948	9,282	8,176	1.1	388.0	8.7	38.00	4.1	14.3
1981	657,057	13,625	9,641	1.1	523.9	0.5	34.00	4.1	19.3
1982	668,459	1,115	9,550	4.0	296.4	14.3	34.00	8.0	15.8
1983	679,465	- 3,610	7,744	8.5	174.8	24.8	29.00	12.0	11.2
1984	683,000	- 4,000	3,738	10.4	92.8	22.0	29.00	14.0	12.1
1985	780,819	- 1,700	1,891	5.9	117.0	20.5	28.00	12.0	10.7
1986	785,465	- 2,100	2,083	4.3	102.2	18.5	15.35	11.0	10.5

Table 1. Indicators of Economic and Social Trends in Edmonton 1971-1986

(Source; Huang, 1989)

With the introduction of the National Energy Program in 1980, rising interest rates, and falling world oil prices after 1980, economic activity slowed dramatically in Alberta and Edmonton. This is demonstrated by the increases in downtown office vacancy rates between 1981 and 1986. Jobs were lost in most sectors of the economy, resulting in greatly increased unemployment rates after 1981. Many of those who lost their jobs responded by migrating to other parts of Canada in search of employment. That is illustrated by negative net migration figures in the period from 1983 to 1986. In turn, apartment vacancy rates rose, accompanied by decreases in housing completions. Oil prices stabilized in 1983 and 1984, resulting in a modest economic recovery. That was short-lived, however, as oil prices collapsed again in 1986 and have remained volatile since then (Huang, 1989).

In summary, from 1971 until 1981 Edmonton experienced quite dramatic economic growth, followed, in the period from 1982 until 1986, by a severe economic recession. These trends must be incorporated into the interpretation of the evaluative indicators used in the remainder of chapter 5.

5.3 Changes in the Supply of Family Housing in the Study Areas

In this section, the analysis is directed toward answering the first research question posed in chapter 3: **Has the family housing stock been maintained since the plans took effect?** With this in mind, the conversion of single-family residences into either rental housing units or business premises is used as a measure of the erosion of the family housing stock, whereas reconversions are interpreted as additions and, hence, as an indicator of renewed confidence in the neighbourhoods as low-density family housing areas. Apartment redevelopment and infilling are similarly treated as contrary indicators, apartment redevelopment leading to reductions in the detached family housing stock and infilling to increases.

5.3.1 Conversion Patterns in the Study Areas (Figure 18)

The lowest levels of conversion were recorded in Groat Estate and Riverdale. In the former, 21% (69) of the houses were converted at some time in their past, 55% (38) of them into two dwelling units and 32% (22) into rooming or boarding houses. In Riverdale, only 16% (56) of the houses were converted at some time, 68% (38) of them into two dwelling units and 20% (11) into rooming or boarding houses.

At the other extreme, almost 60% (145) of the houses in Oliver were converted. It was also the only study neighbourhood where business conversions were a substantial phenomenon, affecting almost 20% of the 242 homes that were still standing in 1986. As a consequence, only 84% (204) of the surviving houses were then used as residences alone. In total, houses converted to partial or full use as business premises account for 32% of all the conversions that occurred in Oliver up to 1986. They attracted various business and consumer services, including law firms, medical practices, consultant engineers offices, beauty salons, art galleries and restaurants. The houses were chosen primarily for their proximity to the central business district and the nearby 124th Street commercial strip, as well as for the character of the structures themselves (Briggs, 1987). The remaining conversions were for residential use, mostly rooming houses (53 or 37%) and basement or upper-storey conversions (44 or 31%).

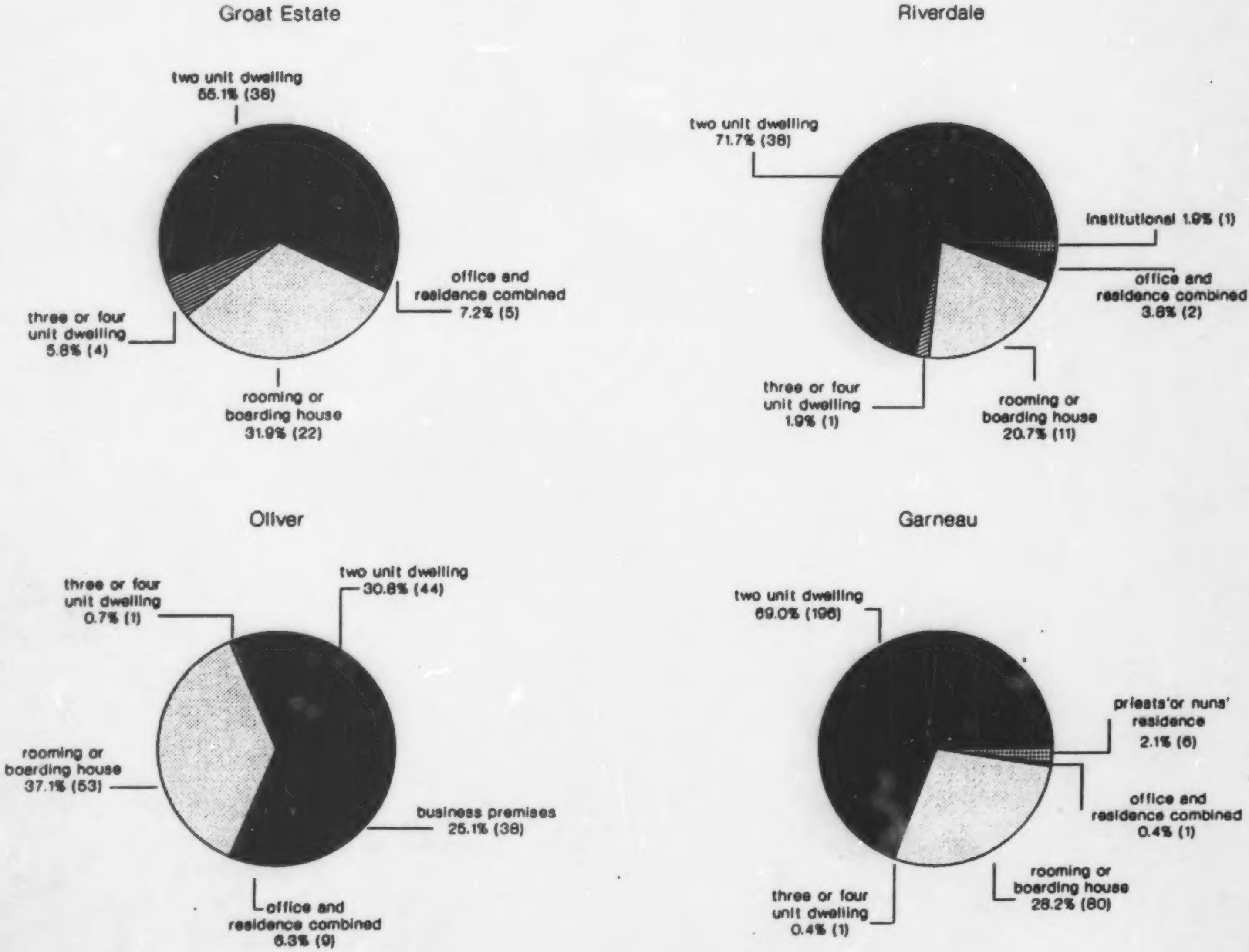


Figure 18. Types of Conversions in the Study Areas up to 1986

In Garneau, 36% (284) of the houses were converted at some time up to 1986. Of these, 69% (196) were converted into two dwelling units, either two-storey houses containing upper-storey and main floor suites, or bungalows with their basements converted into suites. Another 28% (80) were modified for use as rooming or boarding houses.

In the course of the research it was found that it was impossible to determine the precise dates of conversions that occurred before 1970. This was due to the removal of the older assessment cards from the files, to make way for updated versions. Still, since the assessment cards used in the research date back to 1970-71, it is at least known that the conversions for which dates were not available occurred before that year. On this basis, it was calculated that more than 70% of the conversions in each study area occurred before 1970, which conforms with the pattern described by Smith and McCann (1981). They observed that, following a peak in the 1950s, the number of houses converted in Edmonton dropped through the 1960s. Apartment redevelopment then replaced conversion as the principal form of residential change. In addition, Smith and McCann identified the appearance of a previously unseen phenomenon, the reconversion of houses back to single-family use, in the period 1961 to 1971. Since reconversion has special significance for the revitalization of family housing stock, it was important to determine if it had affected the study areas, particularly after the approval of the neighbourhood plans.

5.3.2 Conversion and Reconversion Trends 1971-1986

In Groat Estate, half (39) of all the houses that had ever been converted, representing 12% of all houses in the area, had been reconverted by 1986. Similarly, in Riverdale 54% (30) of the converted houses were reconverted, accounting for 9% of all houses. In Oliver, 28% (40) of converted houses were reconverted (20% of the family housing stock), while in Garneau the comparable proportions were 48% (135) and 17%. Virtually none of the reconversions, in any of the study areas, occurred before 1971, which suggests that single-family housing has experienced a resurgence of fortune.

That impression is reinforced when the occurrence of reconversions is compared with conversions year by year from 1971 to 1986 (Figure 19). In Groat Estate, conversion and reconversion appear to have occurred with roughly equal, albeit low, frequency. Nevertheless, from 1978 to 1985, the eight years following the approval of the Groat Estate plan, reconversion was the more prevalent phenomenon. Riverdale shows a similar pattern. There was an early trend to reconversion between 1973 and 1976, although no more than 20 houses were affected. Conversion made a slight comeback in 1980, but reconversion occurred more frequently than conversion throughout the period 1979 to 1986. The gap in the graph between 1976 and 1980 is due to a spurt of new house construction that was sparked by the approval of the Riverdale plan, but that is addressed in section 5.3.3.

In Oliver, conversion activity virtually ceased after 1976, while reconversion continued through the 1980s. The Oliver area redevelopment plan came into force late in 1981, and the peak of reconversion activity occurred one-and-a-half years later. One-third of the reconversions in the study period occurred in that year. This is interpreted to mean that the Oliver plan did encourage the reconversion of houses to single-family use.

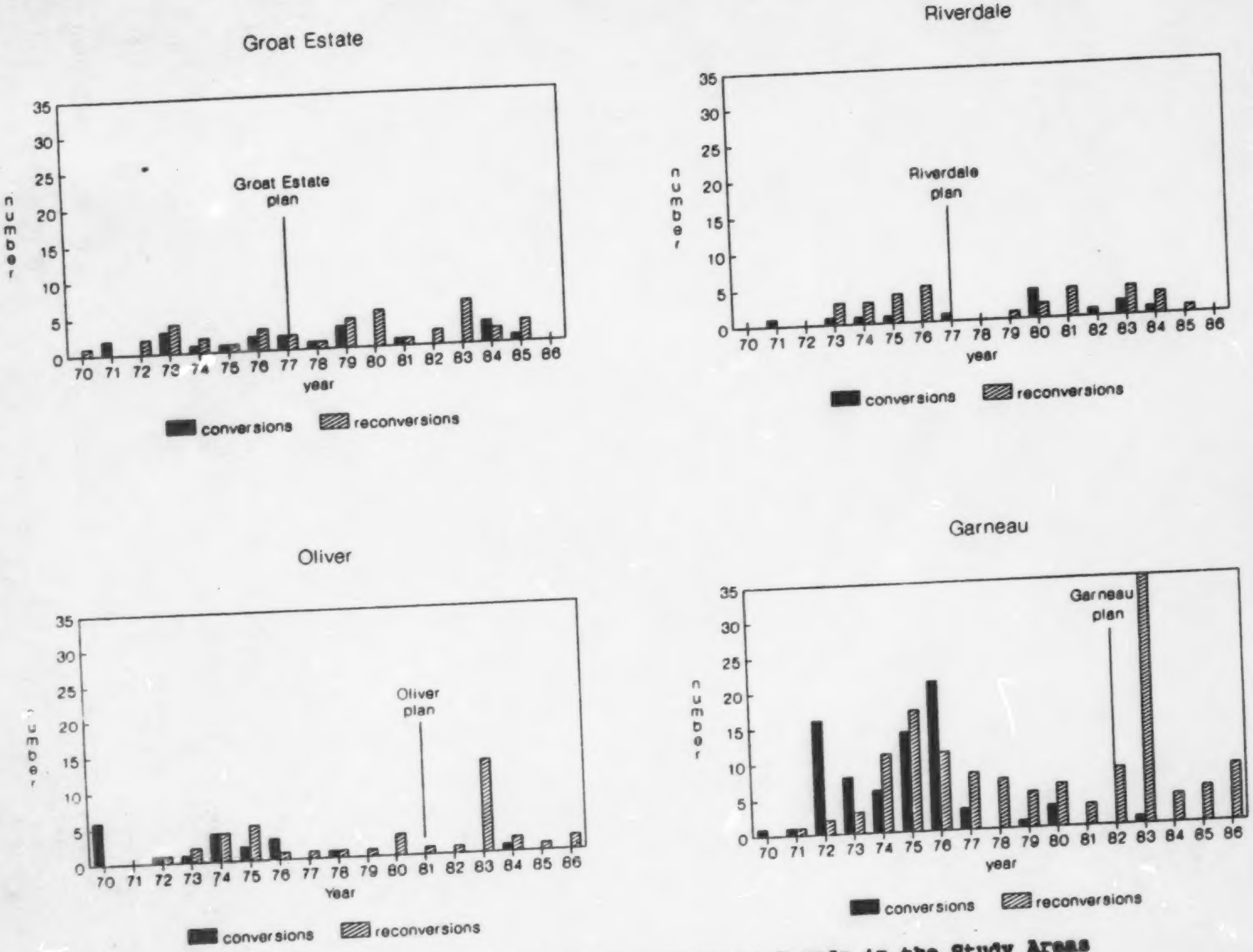


Figure 19. Conversion and Reconversion Trends in the Study Areas
1971-1986

In Garneau, conversion increased to a peak in 1976, before falling sharply in 1977. Reconversions also increased steadily until 1975, and then declined through the years 1976 to 1982, although less markedly than new conversions. In fact, from 1977 to 1986 reconversion was the dominant phenomenon. Even more than in Oliver 1983 stands out, since 26% (35) of all reconversions between 1971 and 1986 occurred in that year alone. Significantly, 1983 was the year after the approval of the Garneau area redevelopment plan, so it seems that the plan's commitment to family housing was an immediate stimulus to reconversion activity.

5.3.3 Redevelopment and Infilling Trends 1971-1986

To begin this section it would be useful to repeat the distinction between redevelopment and infilling. Redevelopment involves the demolition of an existing building and the construction of a new one, not necessarily of the same type or use, on the cleared site. Infilling, as the term is used here, involves the demolition of an existing house and the construction of a new one that blends in with the existing character of the neighbourhood. While infilling is a form of redevelopment, it is usually associated in the study areas with the replacement of small or outmoded houses without a significant increase in development density. The only exception is in Groat Estate, where some infilling has resulted from the subdivision of large lots that were previously occupied by one house. Redevelopment, on the other hand, usually entails the demolition of several houses and the construction of multi-storey apartment buildings in their place.

In Edmonton's inner city, the 1950s and 1960s were characterized by tremendous redevelopment pressure. In Oliver and Garneau, this resulted in great reductions of the family housing stock, whereas Groat Estate and Riverdale were much less affected. In this section, the trends in house demolition, apartment redevelopment and infilling from 1971 to 1986 are examined, with a particular focus on the periods after the neighbourhood plans were approved.

Groat Estate has been virtually untouched by house demolitions for the purpose of apartment redevelopment (Figure 20). There was a small amount of infilling between 1976 and 1979 (Figure 21), but that was mainly on large lots that were resubdivided. Still, these data suggest that the Groat Estate plan did encourage the construction of some new single-family dwellings in the neighbourhood. Since 1986, three houses have been demolished to provide a site for a small shopping mall, but that case is examined more closely in chapter 6.

Riverdale, like Groat Estate, has experienced very little apartment redevelopment (Figure 20). However, the area's exemption from the river valley policy in 1976 was followed by a spurt of infill construction (Figure 21). Owners of property in the area could at last proceed, with confidence, to build new houses, not just on vacant lots but on lots that were still occupied. As a result, 42% (28) of all the demolitions between 1971 and 1986 occurred in 1977 and 1978 (Figure 20). The buildings demolished were small, older cottages and bungalows which were replaced with modern duplexes and detached houses. More recently, there has been a revival of residential infilling in Riverdale, with the construction of fourteen two-storey detached houses and one bungalow in 1987, 1988 and 1989. The current spurt of construction is a spin-off from the implementation of redevelopment plans in the nearby river valley neighbourhoods of Cloverdale and Rossdale, which have gained a

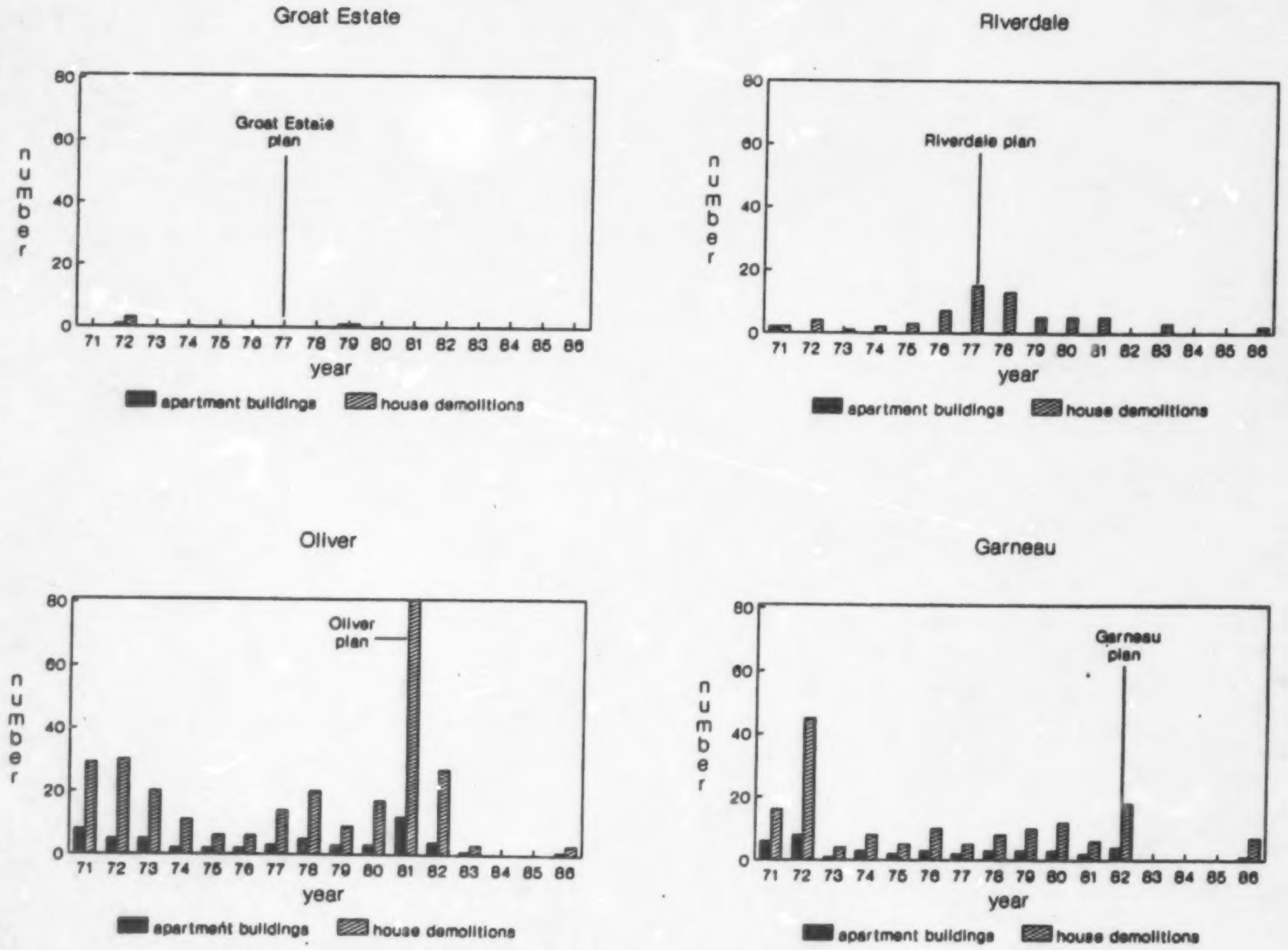


Figure 20. Redevelopment and House Demolition Trends in the Study Areas 1971-1986

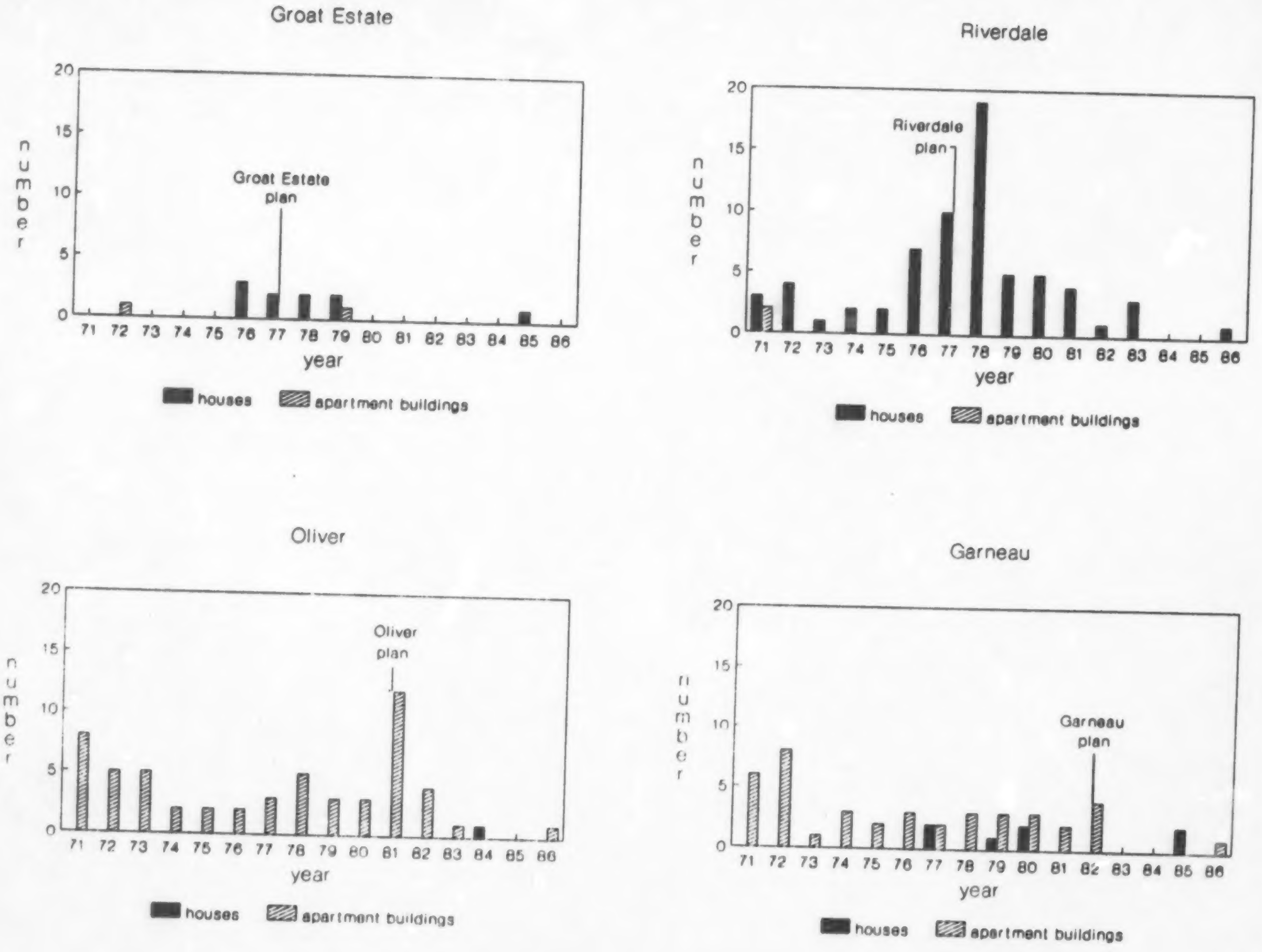


Figure 21. Infilling and Apartment Redevelopment Trends in the Study Areas 1971-1986

new cachet for residential development. None of this would have been possible, however, without the earlier efforts of the Riverdale residents, and the approval of the Riverdale plan as an example for the other neighbourhoods to follow.

Oliver continued to experience apartment redevelopment from 1971 to 1982. In fact, there was a substantial increase in the number of houses demolished to make way for apartment buildings in 1981, the year the Oliver plan was approved (Figure 20). This reflects a rush to complete a number of large high-rise buildings which had been started while the plan was being prepared. Presumably, the developers wanted to act before they could be affected by downzoning under the plan. After 1982, there was virtually no apartment redevelopment or infilling (Figure 21), though this may have owed more to the economic recession than to the influence of the neighbourhood plan. More recently, there has been some further construction; in 1988 six Victorian-style row-houses were built, followed by four luxury town-houses in 1989, and a high-rise condominium building in 1990.

In Garneau, apartment redevelopment continued throughout the 1970s, although there was a noticeable increase in the number of houses demolished in 1982, the year the neighbourhood plan was approved (Figure 20). As in the case of Oliver, this is interpreted to mean that developers were hastening to complete a number of large apartment buildings before the plan was approved. After 1982, there was little or no apartment redevelopment or infilling (Figure 21), reflecting the onset of the economic recession and the consequent sharp drop in demand for rental accommodation.

5.3.4 Implications for Research Question One

In this section, the general similarities and differences among the four neighbourhoods are examined, and the major implications of the results are drawn out.

Infilling and the reconversion of houses to single-family use can be interpreted as adding to the low-density family housing stock, while conversions and demolitions can be interpreted as reducing that stock. With that in mind, the numbers of houses removed from single-family use due to conversions and demolitions were subtracted from the houses added through infilling and reconversion, thereby providing an approximate measure of the net increase or decrease in the low-density family housing stock. The calculation was carried out for the pre- and post-plan periods in each of the four neighbourhoods.

In Groat Estate, the pre-plan period, 1971 to 1976, was characterized by a net reduction of 2 units in the family housing supply. In Oliver and Garneau, the reductions were much larger, 156 and 128 respectively, reflecting apartment redevelopment. In contrast, Riverdale experienced a net increase of 7, but that figure does not reflect the general state of decline in the district in the early 1970s (see sections 5.4 and 5.5).

When the same calculation was carried out for the post-plan periods, substantially different results were obtained. Groat Estate experienced a net addition of 21 houses, while increases of 6 and 36 were recorded in Riverdale and Garneau respectively. Only in Oliver was a decrease recorded - 14 units over the years 1982 to 1986 inclusive.

These summary statistics demonstrate that the low-density single-family housing character of Groat Estate, Riverdale, and Garneau has been effectively maintained since their respective plans were introduced. In fact, the family housing supply increased slightly in all three cases. Moreover, the absence of apartment or commercial redevelopment in Groat Estate and Riverdale, particularly between 1977 and 1982, the period immediately preceding the economic recession, demonstrates that the standing stock of houses was effectively preserved there during a period of sustained redevelopment pressure. Since 1982, there has not been comparable pressure for redevelopment, but that has only helped these neighbourhoods to maintain their residential character. In Garneau, the approval of the neighbourhood plan in 1982 coincided with the onset of the recession, so it is difficult to say how much the retention of single-family housing is due to the plan and how much to a lack of demand for new apartment buildings. Even the reconversion trend may reflect reduced demand for rental accommodation during the period of out-migration. Nevertheless, there appears to have been renewed confidence among the residents that wholesale apartment redevelopment would be prevented.

In Oliver, the neighbourhood most affected by apartment redevelopment, the erosion of the low-density, family housing supply was substantially reduced in the post-plan period. Very little infilling occurred but the reconversions almost offset the losses to conversion and redevelopment. It is also important to know that these losses were sanctioned by the Oliver plan. In other words, the stock of family-oriented houses was maintained in those parts of Oliver that were protected by the plan.

5.4 Changes in the Condition of the Family Housing Stock in the Study Areas

The analyses in this section are directed at the second research question: **Is there evidence to suggest that the condition of the family housing stock improved after the plans came into effect?** As stated in chapter 3, renovation is to be used as the indicator of improvement, and the City of Edmonton property-tax assessment record and a survey of households in the study areas are the data sources. The extent of renovation in the study areas is examined first, followed by the trends of occurrence in the period from 1971 to 1986. The main focus is on the extent of renovation after the respective plans were approved. The types and scale of renovations are then examined, followed by the residents' reasons for renovating.

To explain why the latter factors are considered it is necessary to expand on the notion of "improvement", which can have more than one meaning, and its relation to revitalization. This is important because the plans that are the subject of the present study aimed to encourage the revitalization of the respective neighbourhoods through improvements in the condition of existing houses. It was also implicit in the plans that revitalization was to be for the benefit of existing residents or people like them. The plans could not deny the realities of mobile households and population turnover, but there was never any intention that they should facilitate social upgrading of any kind or that they should cause existing residents to be displaced. It was therefore necessary to look for more in the renovation data than mere frequency of occurrence, although that would have permitted a literal answer to question 2. The underlying and more important concern was whether there was anything in the character of the housing improvements that would point to an association with either a resident population or with newcomers. That really required the purpose of the renovations to be inferred.

There was no single variable in the data base that addressed this problem directly, but by combining analyses of types and scales of renovation activity with the respondents' reasons for renovating their houses it was thought that a coherent interpretation should be possible. Types of renovations are treated first because they provide the most obvious basis for classifying physical improvements in ways that give some sense of their overall purpose. Traditionally, as was pointed out in section 2.5, neighbourhood revitalization has been divided into two types, incumbent upgrading and gentrification, both of which entail improvement in the condition of the housing stock through renovation. It is now recognized, however, that revitalization is more complex than the traditional view suggests, and that varied patterns of physical and social upgrading are possible, even within single neighbourhoods (Millward, 1988). That is important in the present context because it is difficult to differentiate between incumbent upgrading and gentrification, as these terms have traditionally been defined, on the evidence of types of renovations alone. Much the same kinds of renovation work are characteristic of both processes (Clay, 1983). What can be distinguished, at least approximately, are two general classes of physical improvements, one aimed at bringing deteriorated and outmoded houses up to standard and the other at enhancing the amenity or status of houses for lifestyle reasons. Again, the distinction is far from clear-cut, but those improvements that can be interpreted as serving an amenity or lifestyle purpose tend to be associated with some degree of social upgrading, probably but not necessarily as a consequence of population turnover. At the same time, renovations for the purpose of bringing houses up to standard may also be carried out by new residents of higher status, which clouds the interpretation. Still, it does seem reasonable to posit the opposite relationship; that is, renovations carried out by residents of long standing will tend to be in response to a need to improve substandard or outmoded houses.

On their own, data on types of renovations cannot be precisely related to either of the two major purposes of physical improvement, although general tendencies can be inferred. In the next step of the interpretation, the scale of renovation activity is analysed to determine whether or not these tendencies are supported by an independent data set. The assumption here is that large-scale renovations are most likely to be an indication of amenity-enhancing improvements, whereas renovations designed to bring houses up to standard will tend, in general, to be more modest in scale. It is also reasonable to assume that the larger the scale of renovations, and the more numerous they are, the greater the degree of improvement in neighbourhood housing conditions. Finally, to attempt some check on the interpretations drawn from the objective data, the survey results dealing with the respondents' reasons for renovating are analysed.

5.4.1 Extent of Renovation in the Study Areas

Of the 1663 residences examined using the tax assessment data, 18% (300) were found to have been renovated. When the neighbourhoods are considered separately, Groat Estate stands out as having experienced the greatest improvement, with almost a third of its housing stock renovated by 1986 (Table 2a). This compares with 16% in Garneau, 13% in Oliver and 11% in Riverdale. Smith and Woodman (1990), in their study of renovation in Edmonton's inner city as defined by the 1951 built-up area, found that 11.4% of the houses had been renovated. On this evidence, it seems that all four of the study neighbourhoods are at or above the Edmonton average, but that only Groat Estate has experienced an exceptionally high degree of renovation.

At the same time, the results of the resident survey suggest that the assessment data underestimate the extent of renovation activity (Table 2b). In the case of Groat Estate, as many as 86% (55) of the respondents indicated that they have renovated their houses. Once again, the percentages were lower in Garneau, Oliver and Riverdale, in that order, but they were still considerably higher in every case than the assessment records indicate. Presumably, the responses included cases of renovation that were carried out without building permits and without the knowledge of the assessment department. Equally, however, they may include work that would be better described as routine maintenance and upkeep rather than upgrading, so it is possible that the survey responses overestimate the extent of renovation in the study areas.

To try to determine if the renovations increased after the introduction of the neighbourhood plans, their annual frequency from 1971 to 1986 was reconstructed using the dates of building permits first, and then the dates provided by the survey respondents. The building permits reveal an uneven pattern of occurrence (Figure 22); only in Groat Estate and Riverdale is there any indication that the approval of the neighbourhood plans may have stimulated renovation

	Groat Estate	Garneau	Oliver	Riverdale
No. of houses	322	795	204	350
No. of renovated houses	105	131	26	38
% of houses renovated	32.6%	16.4%	12.7%	11.0%

Table 2a. The Number of Houses Renovated in the Study Areas According to the Tax Assessment Record 1971-1986

	Groat Estate	Garneau	Oliver	Riverdale
No. of houses	64	151	48	62
No. of renovated houses	55	101	24	28
% of houses renovated	86.0%	66.9%	50.0%	45.0%

Table 2b. The Number of Houses Renovated Among the Survey Repondents 1971-1986

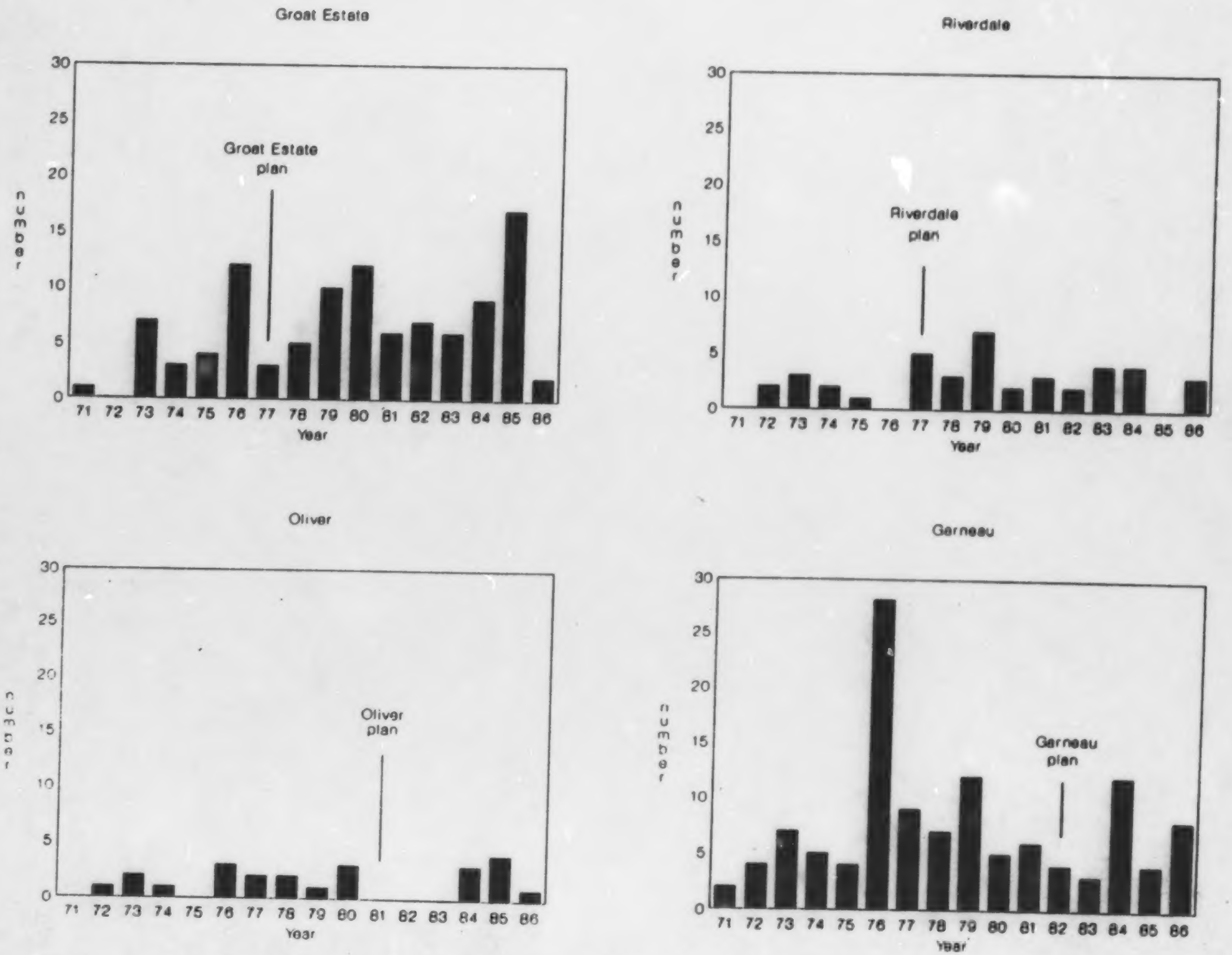


Figure 22. Occurrence of Renovation According to Building Permits 1971-1986

activity, but it is difficult to draw firm conclusions, particularly when the numbers of cases are so small. When the data from the questionnaire survey are plotted, a much more definite pattern emerges, pointing to general increases in all four neighbourhoods since the plans were approved (Figure 23). This result should be interpreted with caution, however. For one thing, it may reflect length of residency, since well over half of the respondents in Riverdale, Oliver and Garneau, and 39% in Groat Estate, had lived in their neighbourhoods for five years or less (Appendix 4). In addition, there may be a tendency to report the details of more recent renovations rather than those completed many years ago. Nevertheless, the data point to the possibility that attitudes have changed in the periods after the plans came into force. It is also striking that these increases occurred during a period of economic recession, which may indicate that some owners decided to invest sweat equity in their existing houses rather than purchase new ones. When combined with the information that the incidence of renovations is at or above the Edmonton average throughout the study areas, it is reasonable to infer that the climate for renovation was better in the post-plan periods than in most other parts of Edmonton's inner city.

5.4.2 Types of Renovations

As noted in section 5.4, particular types of renovations can be associated either with improvement aimed at bringing deteriorated or outmoded features up to contemporary standards, or with improvement designed to enhance the amenity and status of houses. Some of the types of renovations that may be associated with the former include the

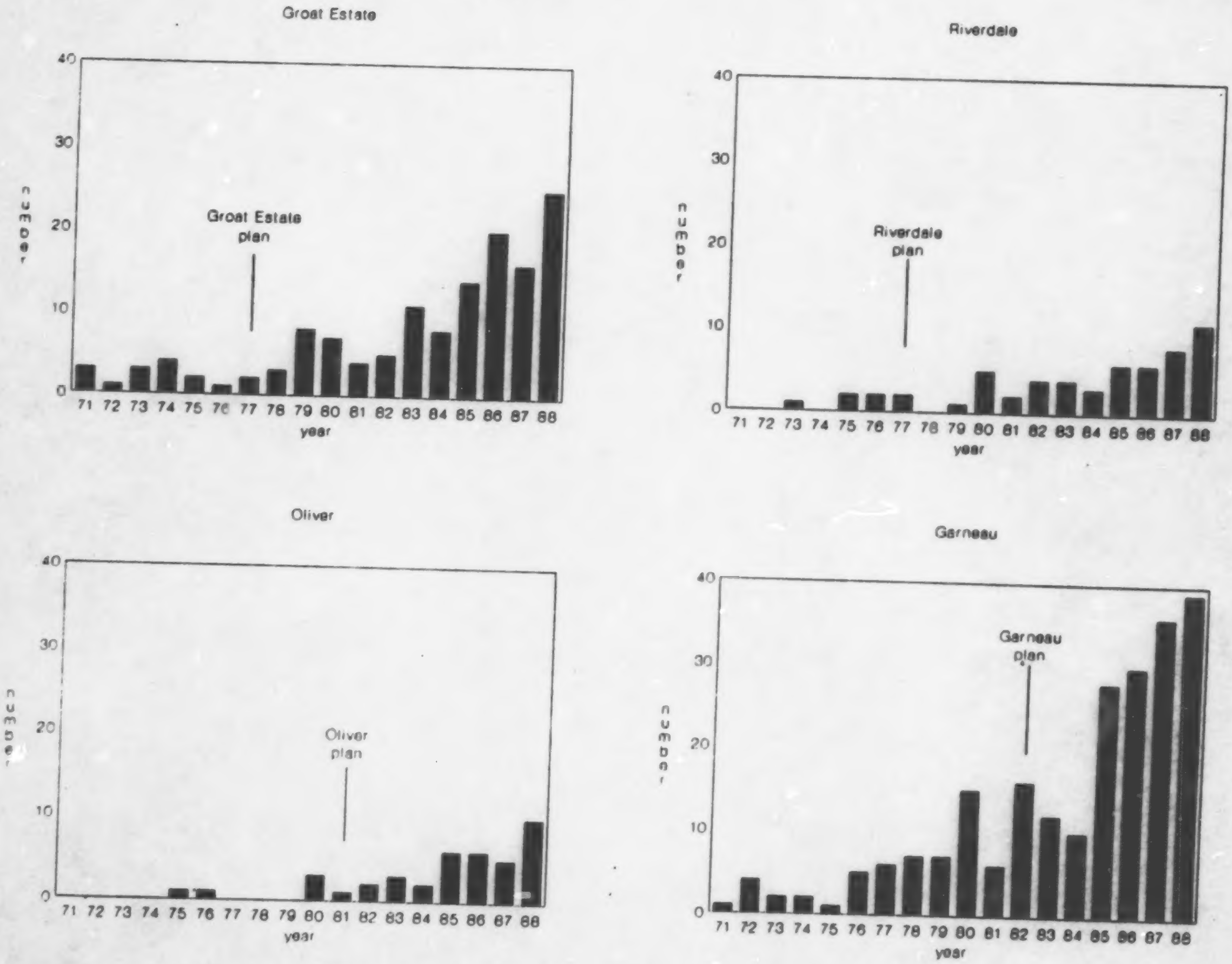


Figure 23. Occurrence of Renovation According to the Survey Respondents 1971-1986

replacement of a furnace, heating ducts, or insulation; overhaul or repair of electrical wiring; repair or replacement of the plumbing system; and repair or replacement of foundations. Types of renovations associated with the latter include expansion of the useable living space of houses, whether by means of external additions or by finishing rooms in basements or attics; the construction of a new balcony, deck, porch or verandah; and the installation of luxury features such as jacuzzis or saunas. This leaves several other types of renovations which may be placed into either of the two classes of improvement, depending on the scale of the work and the residents' reasons for for doing it. These other types include bathroom and kitchen renovations, the installation of new windows or skylights, repair or replacement of the roof, and interior and exterior refinishing. On the one hand, for example, kitchen and bathroom renovations may involve the replacement of old and deteriorated fixtures and appliances; on the other, they may mean remodelling and the installation of expensive luxury equipment. Similarly, the installation of new windows may reflect the need to replace rotting window frames, or it may entail stylish and expensive custom-made units that represent upgrading beyond basic functional needs. This ambiguity compounds the interpretive difficulties, but it was nevertheless important to try to determine whether either of the two broad classes of improvement was prevalent in each of the four neighbourhoods. To permit comparisons, one classification of renovation categories was used to assemble both the assessment data and the questionnaire responses. The popularity of various types of renovations is expressed as a percentage of the total number of renovated houses per neighbourhood. A distinction is made between interior and exterior renovations, but only as a way of organizing the array of data.

5.4.2.1 Groat Estate

It is clear that a great variety of renovations were carried out in Groat Estate (Table 3), representing a mix of returning deteriorated or outmoded houses to contemporary standards and enhancing amenity and status. To begin with the former, the assessment data reveal that the installation of a new furnace and associated improvements was one of the two most common types of renovation, along with interior refinishing; both occurred in 32% (34) of the renovated houses. Other renovations associated with bringing houses up to standard, including roof repair or replacement, electrical rewiring, and plumbing overhaul, were also well represented.

At the same time, renovations that contribute to enhanced amenity or lifestyle were common as well. Most notably, increases in useable space by external additions or the construction of new rooms in basements occurred in 25% and 22% of the renovated houses respectively. By contrast, the installation of a jacuzzi, hot-tub or sauna, which is considered to be an amenity-enhancing renovation that might be particularly associated with social upgrading, was found in only 7% of cases. Still, it is a type of renovation that did not appear at all in the assessment data for Riverdale, Oliver or Garneau.

The results obtained from the survey respondents generally support these findings (Table 3). Again, interior refinishing was the single most popular category of renovation, but nearly all the categories of renovation occurred in high percentages of the renovated houses. The one

Renovation types	Occurrences of renovations as % of total number of renovated houses Assessment data N=105 *	 Survey responses N=55 *
Exterior		
exterior refinishing	24.7	87.3
reroofing, roof repair	16.2	61.8
new windows, skylights	22.8	61.8
deck, balcony, porch, or verandah	24.7	49.1
room addition(s)	24.7	23.6
repair, or replace foundations	7.6	21.8
Interior		
interior refinishing	32.4	163.6
furnace, ducts, or insulation	32.4	74.5
electrical (re)wiring	21.9	58.2
general plumbing	22.9	52.7
bathroom renovation	16.2	60.0
basement (re)development	21.9	32.7
complete remodelling	6.7	12.7
attic development, or dormer	10.4	5.5
kitchen renovation	22.9	38.2
new fireplace	20.0	18.2
jacuzzi, hot-tub, or sauna	6.7	7.3

* Individual houses may have been renovated more than once, and experienced more than one type of renovation, so the percentages do not sum to 100.

Table 3. Types of Renovations in Groat Estate According to the Tax Assessment Record and Survey Responses

basic difference that can be observed is that the survey respondents show a more definite tendency to favour types of renovations associated with bringing houses up to standard.

5.4.2.2 Riverdale

The most frequent type of renovation found in the assessment data for Riverdale was the addition of one or more rooms to a house (Table 4). Seventeen houses, representing 45% of the renovated houses in the neighbourhood, had an addition constructed, while basement development occurred in 12 cases (32%). This represents the greatest proportion of house enlargement among the four study areas, and reflects the relatively large number of cottages and small bungalows in Riverdale's housing stock. To facilitate their continued use as family residences, expansion has had to be a priority for those interested in renovating. In the period since the data collection was completed it has been determined, through personal observation, that this type of renovation activity has continued.

Renovations associated with bringing deteriorated or outmoded houses up to acceptable standards stood out less strongly in the assessment data, although repairs to plumbing systems, and roof repairs or replacement, each occurred in 16% of the renovated houses. Again, this probably reflects the poor quality of much of the surviving housing stock, which simply did not warrant the expense of repairing or replacing even the most basic features. In many cases it made more sense to rebuild on the site rather than carry out the renovations needed to bring a house up to acceptable standards.

Renovations types	Occurrences of renovations as % of total number of renovated houses Assessment data N=38 *	 Survey responses N=28 *
Exterior		
exterior refinishing	21.0	46.4
reroofing, roof repair	15.8	39.3
new windows, skylights	13.2	28.6
deck, balcony, porch, or verandah	21.0	28.6
room addition(s)	44.7	7.1
repair, or replace foundations	5.2	10.7
Interior		
interior refinishing	34.2	114.3
furnace, ducts, or insulation	5.2	53.6
electrical (re)wiring	13.2	60.7
general plumbing	15.8	50.0
bathroom renovation	7.9	53.6
basement (re)development	31.6	32.1
complete remodelling	5.2	10.7
attic development, or dormer	7.9	7.1
kitchen renovation	7.9	46.4
new fireplace	2.6	0.0
jacuzzi, hot-tub, or sauna	0.0	0.0

* Individual houses may have been renovated more than once, and experience more than one type of renovation, so the percentages do not sum to 100.

Table 4. Types of Renovations in Riverdale According to the Tax Assessment Record and Survey Responses

Interior refinishing occurred in 34% (13) of the renovated houses, but that is probably related to the enlargement of living space, which usually requires other kinds of work as well. The questionnaire results confirm this tendency, showing interior refinishing to be the most popular type of renovation among the Riverdale respondents. The survey responses also reverse the pattern in the assessment data by putting more weight on renovations related to the desire to bring houses up to modern standards. Repairs to the heating and plumbing systems and electrical rewiring each occurred in at least half of the respondents' houses, and roof repair or replacement occurred in 39%.

Among the types of renovations that may be associated with enhancing amenity, the construction of additions was reported much less frequently by the survey respondents than in the assessment data, whereas the frequency of basement redevelopment was almost identical. Again, this pattern can be related to the character of Riverdale's housing stock, and in this case the basement room additions could well be associated with the improvement of substandard houses. The same is probably true of bathroom and kitchen renovations, both of which stand out more strongly in the survey responses than in the assessment data.

In summary, it is reasonable to say that improvement of the existing housing stock was largely characterized by upgrading of deteriorated and outmoded houses to contemporary standards. In a small number of cases, this involved house enlargement and related refinishing, but in the main, it entailed the repair and replacement of the most basic facilities. Again, the assessment data tended to pick up the former and the questionnaire survey the latter. These results are consistent with the relatively modest age, size and quality of construction of most of the houses in Riverdale.

5.4.2.3 Oliver

In Oliver, interior refinishing was the most common category of renovation according to the assessment data, occurring in 62% (16) of the renovated houses (Table 5). Exterior refinishing was second, occurring in 42% (11) of the renovated houses. These two types belong to the group that can be related either to enhancing amenity or to bringing houses up to acceptable standards. In combination with the installation of new windows or skylights and bathroom renovations, this group represents a substantial proportion of improvement in Oliver.

Of the types of renovations related to enhancing amenity, those resulting in enlargement of the useable living space were moderately well represented. Basement development occurred in 27% of the renovated houses and the construction of an addition in 15%. Complete remodelling also stood out in Oliver, in contrast to the other three study areas, but the other amenity-enhancing types of renovation were much less common. Renovations related to bringing deteriorated or outmoded houses up to acceptable standards were not particularly strongly represented either; no single type stands out as being especially popular.

As with the assessment data, the survey responses indicate that interior refinishing was the most common type of renovation. Again, that is because it is related to the completion of other types of renovations. The installation of a new furnace, heating ducts or insulation and general plumbing work appeared relatively frequently as well, occurring in 71% (17) and 58% (14) of the renovated houses

Renovation types	Occurrences of renovations as % of total number of renovated houses Assessment data N=26 *	 Survey responses N=24 *
Exterior		
exterior refinishing	42.3	45.8
reroofing, roof repair	23.0	50.0
new windows, skylights	23.0	16.7
deck, balcony, porch, or verandah	7.7	25.0
room addition(s)	15.4	12.5
repair, or replace foundations	3.8	16.7
Interior		
interior refinishing	61.5	116.7
furnace, ducts, or insulation	19.2	70.8
electrical (re)wiring	19.2	37.5
general plumbing	19.2	58.3
bathroom renovation	30.7	33.3
basement (re)development	26.9	8.3
complete remodelling	15.4	4.2
attic development, or dormer	3.8	4.2
kitchen renovation	7.7	25.0
new fireplace	3.8	12.5
jacuzzi, hot-tub, or sauna	0.0	0.0

* Individual houses may have been renovated more than once, and experienced more than one type of renovation, so the percentages do not sum to 100.

Table 5. Types of Renovations in Oliver According to the Tax Assessment Record and Survey Responses

respectively. Overall, renovations aimed at physical inadequacies were well represented, whereas lifestyle-related renovations did not stand out in the survey responses.

It is difficult to distinguish different forms of improvement in Oliver on the basis of types of renovations, particularly given the small number of houses involved. The data suggest, however, that amenity-enhancing renovations have been confined to a small group of houses which have been extensively upgraded, while the rest of the renovations reflect the need to improve the larger group of remaining houses due to their age.

5.4.2.4 Garneau

In Garneau, as in Oliver, the assessment data reveal that interior refinishing was the single most common type of renovation, occurring in 30% (39) of the renovated houses (Table 6). Exterior refinishing was the second most important type, occurring in 25% (33) of the renovated houses. Together with the installation of new windows or skylights and kitchen and bathroom renovations, this group of renovations accounts for a substantial proportion of improvement in Garneau. The most common types of amenity or lifestyle enhancing renovations were those that added to useable living space; specifically, the development of basement rooms and the construction of external additions, which occurred in 24% and 20% of the renovated houses respectively. Combined with the other amenity-enhancing renovations, these, too, represent an important component of improvement in Garneau. Renovations aimed at bringing houses up to acceptable standards are not so common in the assessment

Renovation types	Occurrences of renovations as % of total number of renovated houses Assessment data N=131 *	 Survey responses N=101 *
Exterior		
exterior refinishing	25.2	68.3
reroofing, roof repair	10.7	51.5
new windows, skylights	13.0	24.8
deck, balcony, porch, or verandah	11.4	31.7
room addition(s)	19.9	11.9
repair, or replace foundations	1.5	11.9
Interior		
interior refinishing	29.8	110.9
furnace, ducts, or insulation	12.2	58.4
electrical (re)wiring	8.4	45.5
general plumbing	21.4	49.5
bathroom renovation	19.9	41.6
basement (re)development	23.7	23.8
complete remodelling	4.6	4.0
attic development, or dormer	0.0	10.9
kitchen renovation	13.7	28.7
new fireplace	14.5	8.9
jacuzzi, hot-tub, or sauna	0.0	1.0

* Individual houses may have been renovated more than once, and experienced more than one type of renovation, so the percentages do not sum to 100.

Table 6. Types of Renovations in Garneau According to the Tax Assessment Record and Survey Responses

data, except for repairs to plumbing systems which occurred in 21% of the renovated houses.

The questionnaire data confirm that interior and exterior refinishing were the two most popular types of renovation in Garneau. Work related to bringing houses up to standard is also better represented in the survey responses than in the assessment data. Installation of a new furnace, heating ducts or insulation, electrical rewiring, and roof repair or replacement, in particular, were more popular in the survey responses. Two types of renovations related to amenity enhancement stand out more strongly as well: first, the addition of a new porch, deck, verandah or balcony (32%); and, second, the construction of attic rooms or dormers (11%). Otherwise the pattern is similar to that found in the assessment data.

As in each of the other three neighbourhoods, these data suggest that the bulk of the renovated houses were being upgraded to acceptable contemporary standards. A second, smaller group of houses was renovated for purposes of enhanced amenity and lifestyle, particularly by being enlarged.

5.4.2.5 Summary

Together, the assessment data and the survey responses reveal that a wide variety of types of renovations have been carried out in the four neighbourhoods. The survey responses tend to emphasize renovations aimed at upgrading houses to modern standards, while the assessment data bring out more strongly the importance of amenity enhancement, particularly in the form of house expansion. In part, the differences between the two data sets can be explained by the fact that the assessors focus on renovations that are likely to result in higher property taxes and do not record work they judge to be basic maintenance. The survey responses, however, include various types of refinishing, such as painting and decorating, and other improvements that are likely to escape the assessors' notice. On balance, then, the survey responses are thought to provide the more accurate profile of the types of renovations that were carried out. That, in turn, means improvement in the condition of housing in all four of the study neighbourhoods was related mainly to bringing deteriorated or otherwise defective houses up to contemporary standards. This is probably a function of the nature of the housing stock, much of which was old by Edmonton standards, and modest in size and quality of construction.

5.4.3 Scale of Renovations

In this section, the scale of the renovations carried out in the study areas is examined using data drawn from the assessment record and the questionnaire responses. Two key indicators are available: structural value and effective age. As described in section 3.4.3.2 these indicators tend to be applied to different groups of houses, but in either case any change represents a substantial improvement in the condition of the houses in question. Taken together, increases in structural value and decreases in effective age are valuable measures of the degree to which neighbourhood housing conditions have improved. They have another advantage as well, in that they provide a means of distinguishing large-scale renovations, an indicator which serves a double purpose. In the first place, the greater the proportion of large-scale renovations in any neighbourhood the greater the overall improvement in housing conditions will be, and the greater the positive externalities for the rest of the housing stock. Evidence of large-scale renovations is thus a strong indication that a neighbourhood is appreciating in value. In the second place, following from that point, large-scale renovations are more likely to be associated with amenity-enhancing improvements and hence with social upgrading and population succession. The implication is that a disproportionate number of large-scale renovations could be an indication that a plan is failing in its objective of improving housing conditions for the resident population.

For the purposes of analysis, an increase of $5,000 or more in structural value and a decrease of 10 years or more in effective age are adopted as the criteria of large-scale renovation.

5.4.3.1 Structural Value

Houses that had their structural value increased represented 78% (82) of those renovated and 25% of all the houses in Groat Estate, confirming the relatively widespread occurrence of renovation there. In Riverdale, by contrast, they accounted for 80% (30) of the renovated houses but only 9% of all houses. In Oliver, almost half (12) the renovated houses had their structural value increased, but again this represented a low proportion (6%) of the neighbourhood's houses. Finally, two-thirds (87) of the renovated houses in Garneau had their structural values increased, accounting for 11% of all houses in the neighbourhood.

When the increases in structural value were grouped, it became clear that most of the renovations were small-scale; that is, they resulted in structural value increases of less than $5,000 (Figure 24).

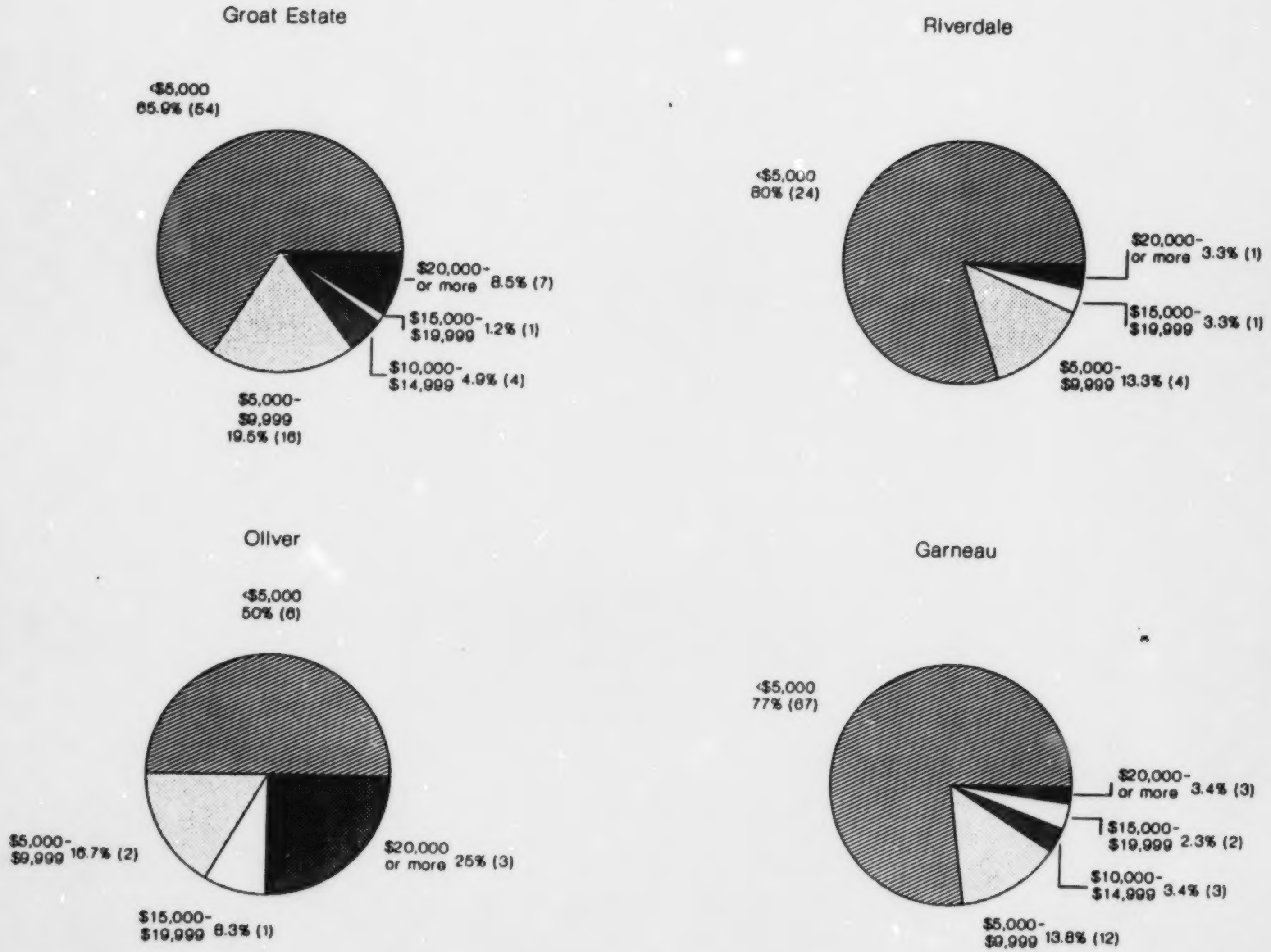


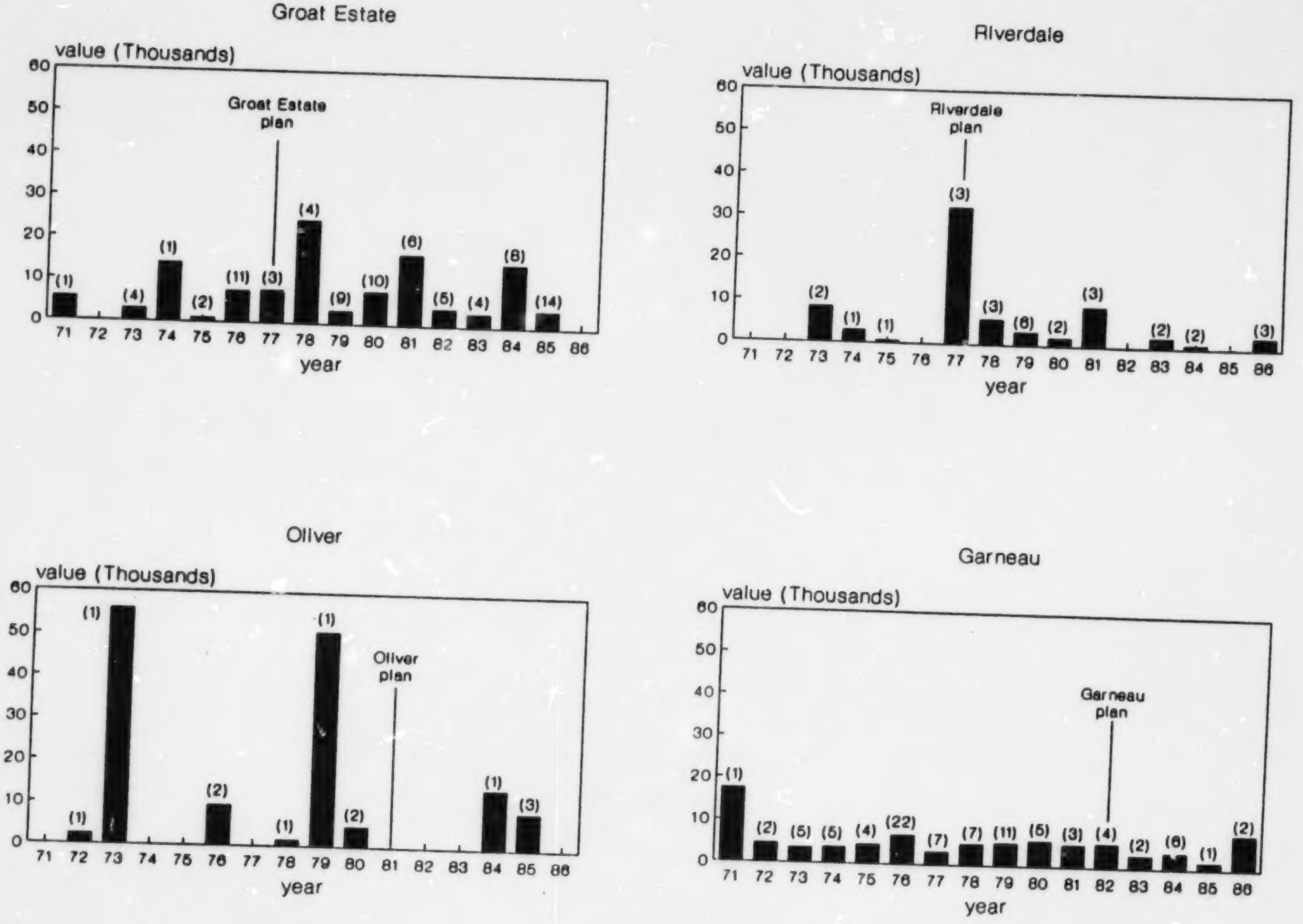
Figure 24. Increase in Structural Value Due to Renovation in the Study Areas 1971-1986

The exception was Oliver where 50% of the increases were $5,000 or more, but this represented only six houses. In Groat Estate, one-third (28) of the increases were $5,000 or more; in Riverdale, 20% (6); and in Garneau, 23% (20). These cases represented 9% of all the houses in Groat Estate, 2% in Riverdale, and 3% in both Oliver and Garneau. When it is considered that only 4% of all houses in Edmonton's inner city have undergone large-scale renovations, according to Smith and Woodman (1990), it appears that only Groat Estate has experienced a degree of large-scale renovation that could be considered disproportionate.

To try to reveal any possible influence the plans may have had on the scale of the renovations, the average annual increase in structural value due to renovations was calculated (Figure 25). The results, however, did not reveal any obvious increase after the plans were adopted, except perhaps in Groat Estate. In Riverdale, the average increase was almost $35,000 in 1977, the year the community plan was introduced, but this represented only three cases. In Groat Estate, the largest increase, which was almost $25,000, occurred in 1978, following the approval of the neighbourhood plan; other substantial increases were recorded in 1981 and 1984.

5.4.3.2 Effective Age

Among the four study areas, Groat Estate contained the largest number of renovated houses in which the effective age was reduced (59 or 56%), representing 18% of all the houses in the neighbourhood. The small group of renovated houses in Oliver also includes a high percentage in which the effective age was reduced (54%, 14 houses), but in this case



Groat Estate

Riverdale

Oliver

Garneau

Figure 25. Average Annual Increase in Structural Value in the Study Areas 1971-1986

only 7% of all houses were affected. In Garneau, 36% (47) of the renovated houses (6% of all houses) had their effective ages reduced, and in Riverdale only 29% (11) of the renovated houses, or 3% of all houses in the neighbourhood.

When the data were grouped, it became clear that the bulk of the renovations were small-scale in Groat Estate and Garneau; that is, they resulted in age reductions of less than 10 years (Figure 26). In Riverdale and Oliver, 55% and 64% of the cases represented age reductions of more than ten years, but those results must be qualified by the small numbers of houses they represent. Large-scale renovation, as defined by effective age, accounts for 8% of all houses in Groat Estate, 4% of those in Oliver, and only 2% and 3%, respectively, in Riverdale and Garneau. This result virtually duplicates the pattern for the increases in structural value, and again Groat Estate is singled out as having experienced the greatest degree of large-scale renovation.

As the next step in the analysis, an attempt was made to determine whether reductions in effective age were more common after the neighbourhood plans were introduced. To this end, annual averages were calculated for each neighbourhood for every year from 1971 to 1986. In Garneau and Oliver, the results (Figure 27) do not offer any evidence that the plans affected the scale of the renovations carried out; in Groat Estate and Riverdale, on the other hand, the largest effective age reductions did occur after the plans were approved, although the numbers of cases each year are so small that the result should be interpreted with caution.

In summary, although both measures indicate that housing conditions improved in all four neighbourhoods over the full study

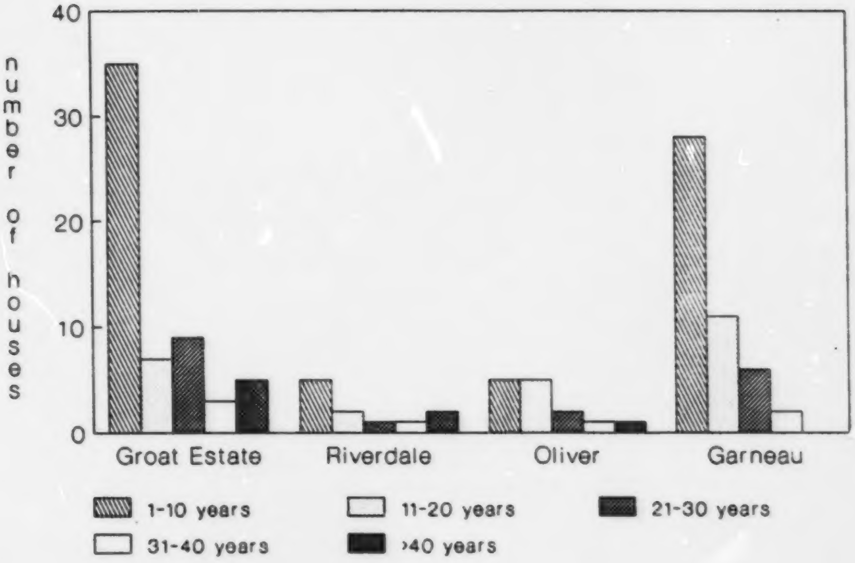


Figure 26. Effective Age Reduction Due to Renovation in the Study Areas 1971-1986

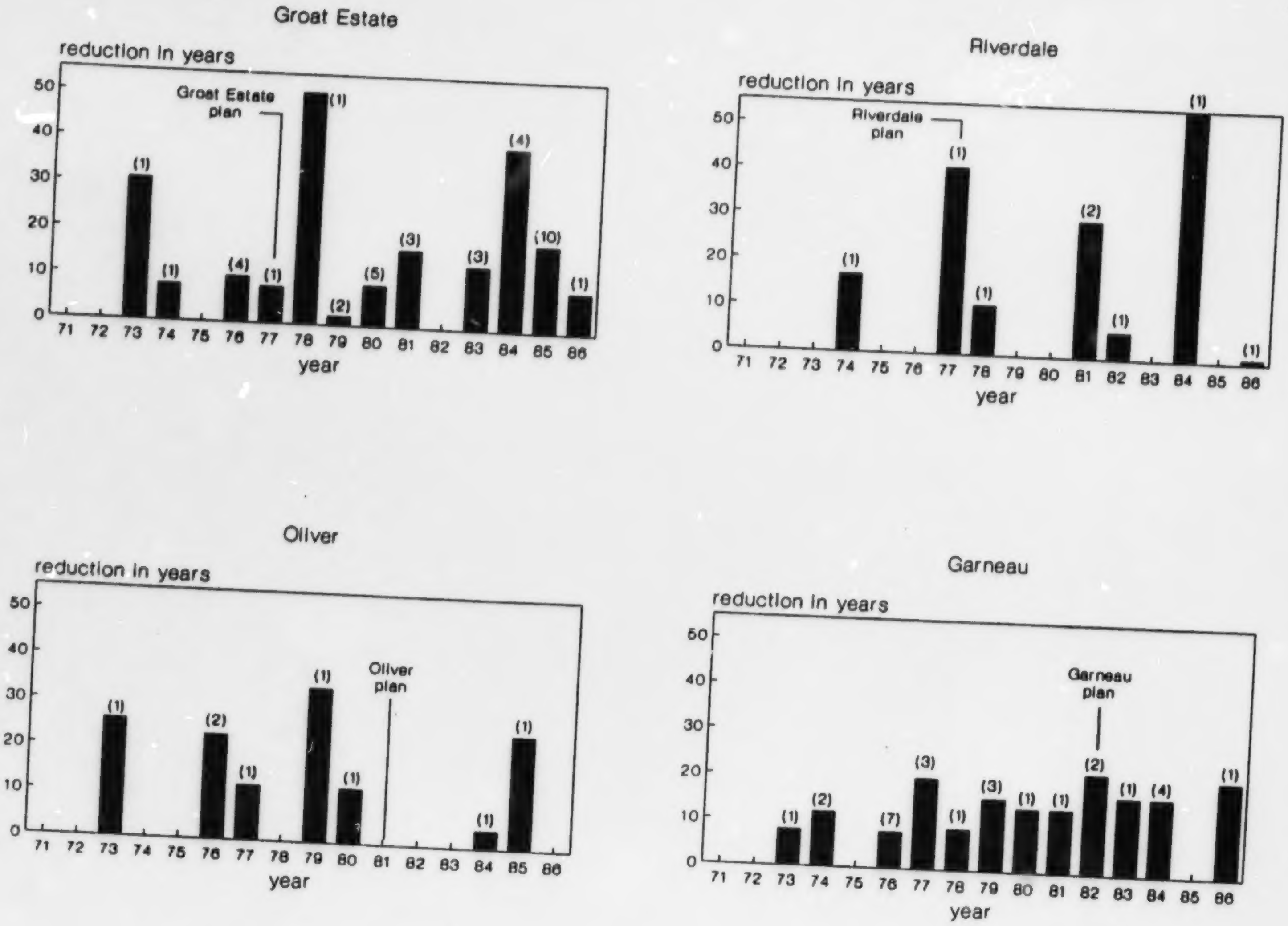


Figure 27. Average Annual Effective Age Reduction in the Study Areas 1971-1986

period, only in Groat Estate was a substantial proportion of the housing stock affected. It was only in Groat Estate as well that there was reasonably strong evidence that the degree of improvement increased after the neighbourhood plan came into effect, and Groat Estate was the only neighbourhood to experience a significant amount of large-scale renovation. In Oliver and Garneau, the amount of large-scale renovation was roughly comparable to the average for inner Edmonton, and in Riverdale it was slightly below average. In general, however, renovations in all four neighbourhoods were typically small-scale.

5.4.3.3 The Scale of Renovations Among the Survey Respondents

Because the assessment record is used for the purpose of calculating property taxes, it is likely that the scale of renovations reported to the department is generally under-estimated. To try to overcome this weakness, the survey respondents were asked to supply information on the costs of renovations carried out by them. The data were classified into five categories and converted into 1986 dollars (Figure 28). Once again, $5,000 was adopted as the dividing line betweeen large- and small-scale renovations to permit at least an approximate comparison with the assessment data.

The responses indicate that in Riverdale, Oliver and Garneau the great majority of renovations cost less than $5,000. By contrast, in Groat Estate the proportions of renovations above and below $5,000 were almost equal. At the same time, however, renovations costing more than $5,000 dollars comprised 27% of the renovations reported in Riverdale, 28% of those in Garneau, almost a third of the renovations in Oliver, and just over half of those reported by the Groat Estate respondents.

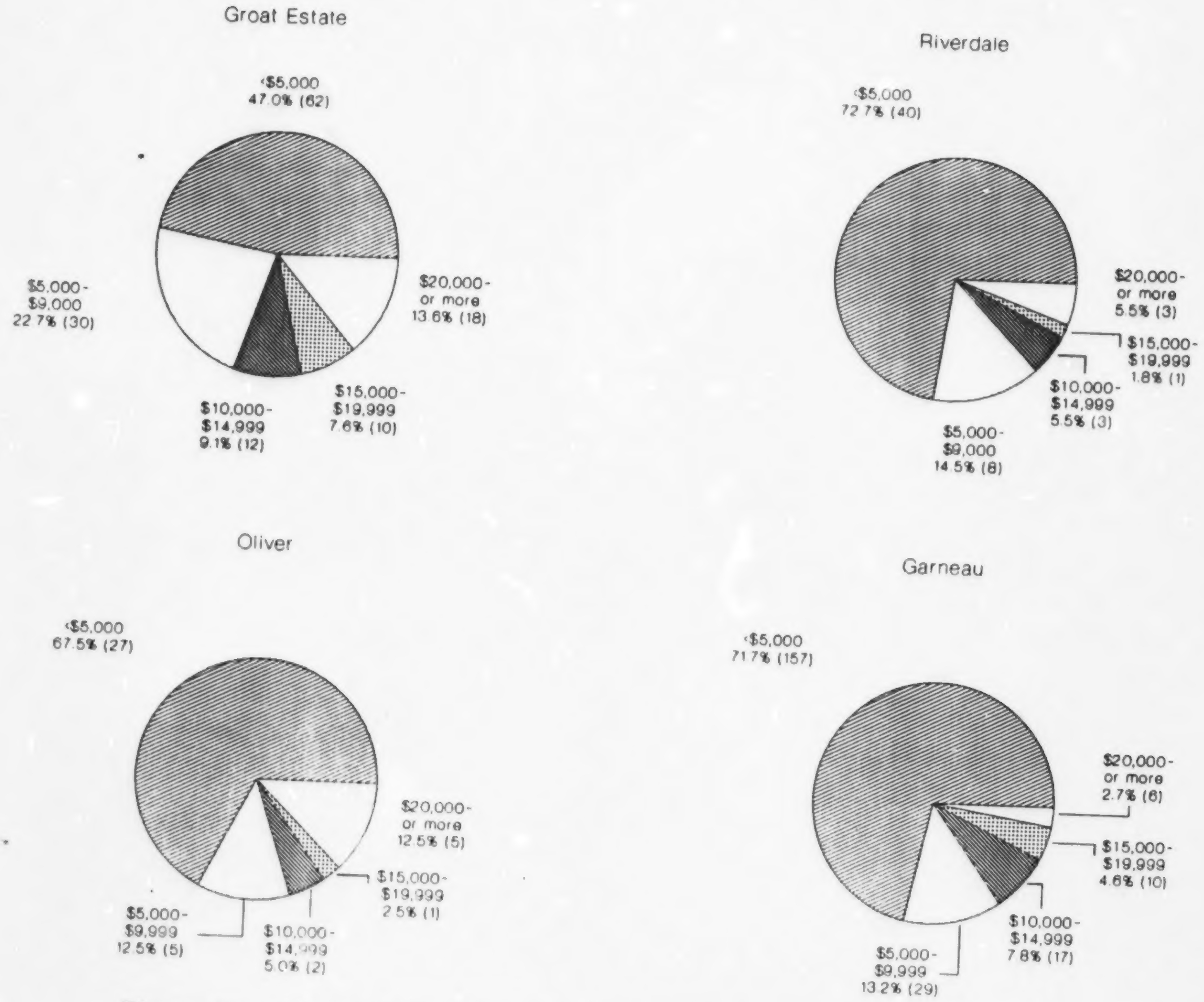


Figure 28. Costs of Renovations Reported by the Survey Respondents, in 1986 Dollar Values

While these results confirm that large-scale renovation was most widespread in Groat Estate, they also suggest that the proportion of large-scale renovations was larger in all four neighbourhoods than the assessment data indicate.

Since it is reasonable to assume that large-scale renovations are likely to be the most complicated, and so most likely to require expert help, the respondents were asked to identify every renovation project that was carried out by contractors. In Groat Estate, it was reported that 70% (94) of all renovations were carried out by contractors rather than by the respondents themselves, suggesting that much of the work was large-scale (Figure 29). The percentages were substantially lower in Oliver and Garneau, and lower still in Riverdale where more than half the renovations were the work of the respondents. These results indicate even more strongly that large-scale renovation was most widespread in Groat Estate.

Overall, the data from both the assessment record and the survey responses indicate that the bulk of the renovations carried out in all four of the neighbourhoods were small-scale. It is also clear, however, that Groat Estate experienced more large-scale renovation than the other study areas or inner Edmonton in general, which lends weight to the idea that lifestyle-related upgrading has been especially significant there. In Garneau, the amount of large-scale renovation was roughly comparable to the average for inner Edmonton, but the bulk of the renovations were comparatively small in scale. Unlike Riverdale, however, where the data point overwhelmingly to the importance of upgrading defective houses, the Garneau data suggest a combination of improvements aimed at bringing outmoded or deteriorated houses up to acceptable standards and work

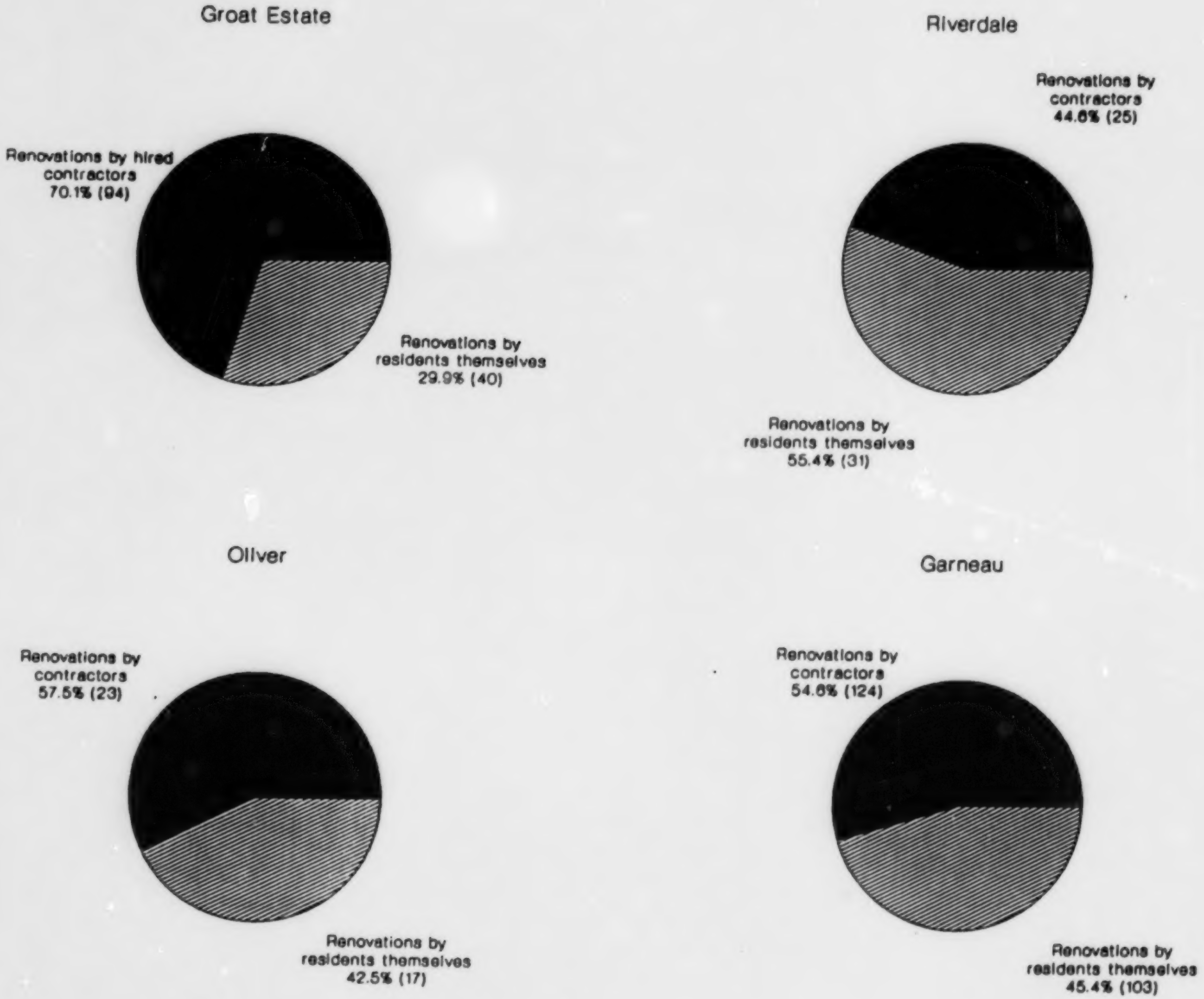


Figure 29. Percentage of Renovations Carried Out by Hired Contractors and by the Respondents

aimed at enhancing amenity and lifestyle. Finally, in Oliver, large-scale renovation was quite common among the renovated houses, but they represent only a handful of the houses remaining in the neighbourhood.

5.4.4 Survey Respondents' Reasons for Renovating

In this section, the analysis is based only on responses from those respondents whose houses had been renovated. In question 10a, the respondents were asked to choose, from a prepared list, their reasons for renovating. They could select as many reasons as they wished:

1. Basic maintenance and repairs were necessary.
2. Previous renovations or repairs were inappropriate or unnecessary for our changing family needs.
3. We found personal satisfaction in upgrading the style and looks of the house.
4. We desired to enhance the resale value of the house by upgrading it.
5. Knowing that the area is protected by a neighbourhood plan encouraged us to invest in renovation work.
6. We did not renovate our house.
7. Other (to be specified by the respondent).

In addition, in question 10b, the respondents were asked to identify the first and second most important reasons for renovating their houses. The results simply duplicated those obtained from question 10a, however, and so were omitted from the analysis.

Two reasons for renovating stand out in all four of the study areas: personal satisfaction in upgrading the style and look of a house; and the need for basic maintenance and repairs (Figure 30). The former reason was reported most frequently only once, in Groat Estate, and even

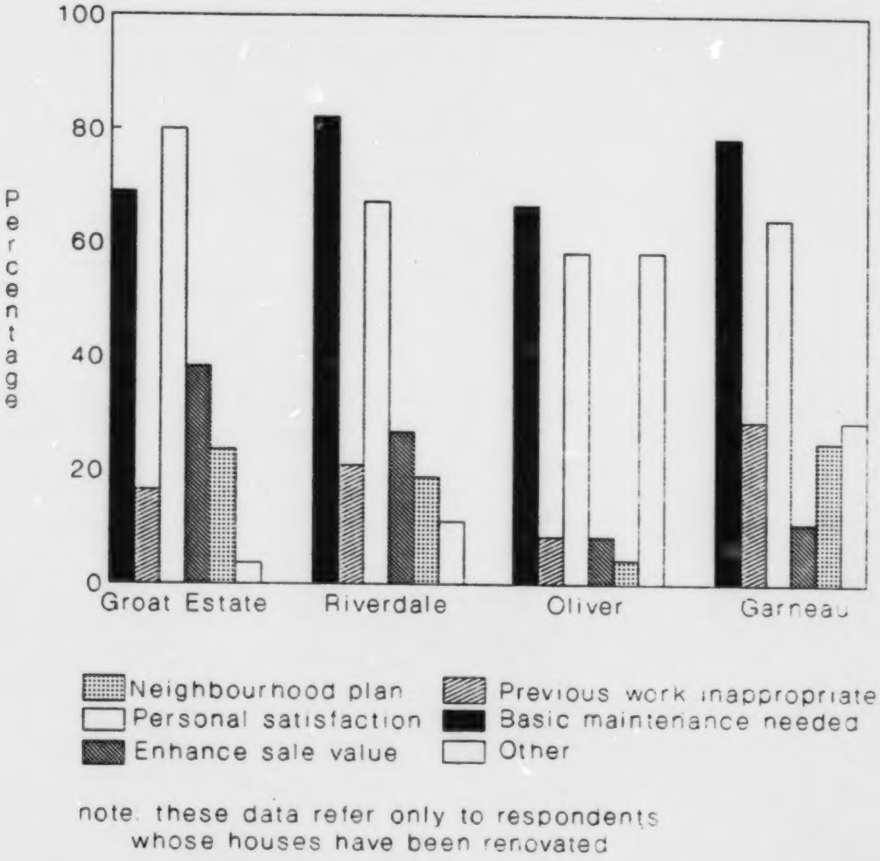


Figure 30. The Survey Respondents' Reasons For Renovating

then it was followed quite closely by the need for maintenance. In the other three neighbourhoods the patterns were reversed; the need for basic maintenance and repairs was reported most frequently, with personal satisfaction a close second. In the case of Oliver, the "other" category was well represented also; an inspection of the responses revealed that virtually all of them were from tenants whose landlords had carried out the work. In all four neighbourhoods, then, the results suggest that most of the renovations were motivated by a combination of personal lifestyle concerns related to amenity enhancement and essential maintenance and upgrading.

The influence of the neighbourhood plans received comparatively low scores, which probably indicates that the respondents do not realize the role that plans can play in controlling development and in creating conditions conducive to renovation. Moreover, because many of them were relative newcomers (see Appendix 4) they might not have been aware of the planning issues that surrounded the approval of the plans. Inappropriate or insufficient previous renovations, and the desire to enhance the resale value of the house, were also less frequently reported as reasons for renovating in each of the four study areas.

5.4.5 Implications for Research Question Two

Taken together, the various renovation data indicate that the condition of the family housing stock improved over the course of the study period in all four neighbourhoods. The trend to improvement was established before the neighbourhood plans came into effect, but it is clear, in every case, that it continued through the post-plan period. In fact, to the extent that the data permit, it seems reasonable to conclude that the improving trend actually strengthened somewhat, though not to the same degree in all the study areas. The data on types and scales of renovations are assumed to be representative of the improvements that occurred during that period of increased renovation activity after the plans came into effect.

Groat Estate, particularly, has been experiencing substantially more renovation than is normal in Edmonton's inner city. The assessment data revealed that 33% of the houses had been renovated, which is high in comparison with Smith and Woodman's finding that 11.4% of the houses in the 1951 built-up area had been renovated by 1986. The questionnaire data gave further support to the conclusion that renovation is widespread in Groat Estate, since 86% of the respondents indicated that they had renovated their houses at least once. Moreover, while the assessment records provided some indication that renovation increased after the neighbourhood plan was approved, the questionnaire results supplied much stronger evidence of that tendency. In Garneau, too, the occurrence of renovation was above average for inner-city Edmonton, and 67% of the survey respondents reported that they had renovated their houses. There was also a substantial increase in activity after 1984. Similarly, in Riverdale, renovation activity increased markedly after the neighbourhood plan was approved. Before then, of course, there was no incentive to renovate. In Oliver, a relatively small number of houses remain in residential use today. Of these, 13% (26) were renovated according to the assessment data, whereas 50% (24) of the survey respondents reported their houses to be renovated. The dates of renovations assembled from the assessment record offered no clear pattern, but as in the other study areas, the survey responses strongly suggested that most of the renovations occurred after 1980.

The data on types of renovations were difficult to interpret. In all four of the study areas, the results indicate that a wide variety of types of renovations were carried out, representing a mix of physical improvements. Expansion of useable living space was an important type of amenity-enhancing renovation everywhere, and it was usually accompanied by various kinds of refinishing work. At the same time, the installation of new furnaces, electrical rewiring, plumbing work, and roof repairs were also quite well represented, reflecting the need to upgrade or replace defective features and equipment. That, in turn, is a function of the nature of much of the housing stock, which was relatively old by Edmonton standards and often built to fairly basic standards.

The data on the scale of renovations better allow differences among the four areas to be drawn out. The changes in both structural value and effective age indicate that the bulk of renovations were small-scale in all four of the neighbourhoods. But when compared with Smith and Woodman's finding that 4% of all the houses within Edmonton's 1951 built up area experienced large-scale renovation by 1986, it is clear that Groat Estate accounts for a disproportionately large share of that activity. There, the percentage of houses that underwent large-scale renovation was double the average for inner Edmonton, whereas the equivalent proportions in Garneau and Riverdale were 3% and 2% respectively. In Oliver, the actual number of renovated houses was small, but the proportion that experienced large-scale renovation was high. These represent the last large, high-quality houses remaining from earlier in the century when Oliver was one of Edmonton's most desirable neighbourhoods.

The average annual increases in structural value and decreases in effective age do not offer any evidence that the scale of renovations increased in the periods after the plans came into effect, except, perhaps, in Groat Estate. It was only in Groat Estate, the area experiencing the greatest amount and largest scale of renovation, that personal satisfaction was the most frequently cited reason for renovating. Moreover, the data on costs of renovations reported by the survey respondents and the proportion of renovations carried out by hired contractors suggest that large-scale renovations have been more widespread than the assessment data indicate. Taken together, the renovation data may point to some increase in the scale of renovations in Groat Estate after the plan came into effect. The implication is that improvement related to enhancing amenity and lifestyle may have increased in importance in that period.

In contrast, in Riverdale, Garneau and Oliver, while the overall level of renovation activity rose in the post-plan period, there is no evidence to suggest that the scale of renovations increased. In each of these neighbourhoods a need for basic maintenance and repairs and the personal satisfaction motive stood out as the two most frequently cited reasons for renovating, although the former was the more popular of the two. In combination, the renovation data suggest that the bulk of improvement in Riverdale, Garneau and Oliver continued to be aimed at upgrading neglected and outmoded houses to contemporary standards.

The improvement in the condition of houses in the study areas seems to reflect a combination of characteristics that can be associated with either social upgrading or incumbent upgrading. Both processes are generally associated with improvement aimed at upgrading older houses that had been allowed to fall into disrepair, although social upgrading is usually associated as well with large-scale renovations, particularly those that require structural changes to be made. Incumbent upgrading is normally associated more with smaller scale renovations and repairs. Still, as stated in section 5.4, the two processes can occur simultaneously and in various combinations, and the analyses presented above suggest that that has happened in each of the study areas. Analysis of social and demographic trends can help to clarify the form that improvement has taken in the study areas. Neighbourhoods experiencing social upgrading can be expected to have different demographic and social characteristics from those where incumbent upgrading is being practiced. Social upgrading is usually characterized by in-movement of higher status newcomers and sometimes, although not necessarily, with the displacement of the previous population. Incumbent upgrading, on the other hand, is associated with a more stable population. With that in mind, demographic and social changes in the case study neighbourhoods are examined next.

5.5 Demographic and Social Change in the Study Areas 1971-1986

Population data covering the period 1971 to 1986, were extracted from the Census of Canada with the aim of answering the third research question: **Is there evidence to suggest that the mix of social groups was increased, or that the incumbent population was displaced, after the plans came into effect?** The situation in each of the four neighbourhoods will be analysed in turn. The analysis will focus on seven key indicators: first, age, which is used to determine whether the case study neighbourhoods have been attracting a variety of people, ranging from families with children to senior citizens, particularly since the neighbourhood plans came into force; second, type of household, also used to determine whether the study areas have been attracting families; third, mobility status or, more specifically, an increase in the percentage of movers, as an indicator of displacement. That is supplemented by the length of residency of the survey respondents, as an indicator of the popularity of the neighbourhoods as places to live. In addition, the survey data permit the analysis to focus on house residents, which is particularly useful in Oliver and Garneau where they are lost in the census data. The fourth indicator, occupancy type, again is used as an indicator of residential stability. Finally, the fifth, sixth and seventh indicators, educational attainment, occupational status and average family income respectively, are used to determine whether the neighbourhoods have have experienced an increase in social mix or have become more socially exclusive. These indicators are also compared with their equivalents for the Edmonton metropolitan area (Appendix 3).

5.5.1 Groat Estate

In Groat Estate, the percentage of pre-school age children fell from 8% in 1971 to 6% in 1981, before recovering slightly to 7% in 1986 (Figure 31). These proportions were all low by Edmonton's standards, but the increase between 1981 and 1986 may indicate that Groat Estate was starting to become more attractive to young families. More significantly, some of the older age categories increased between 1970

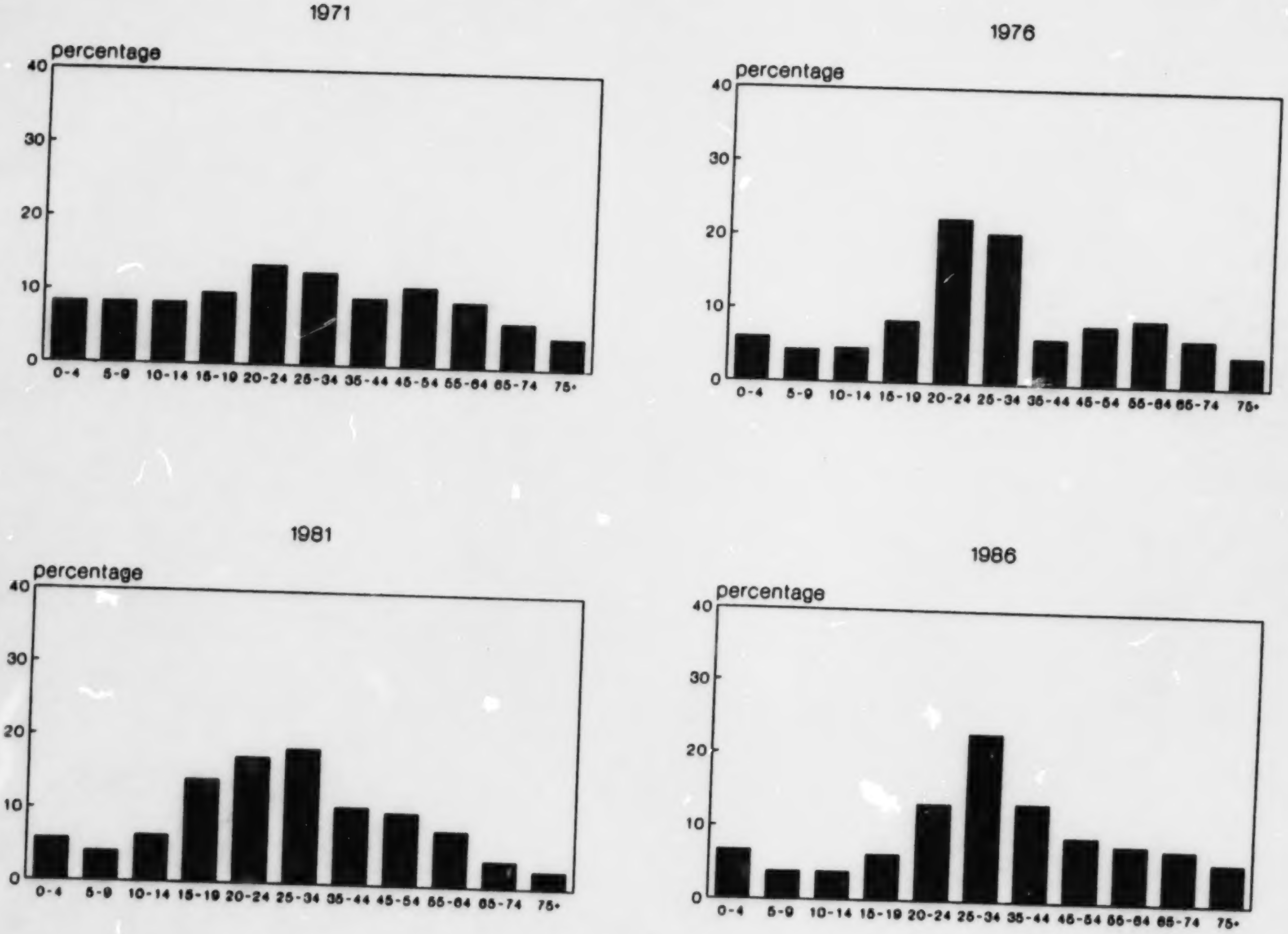


Figure 31. Groat Estate Age Distributions 1971-1986

and 1986, particularly the 25-34 and 35-44 years groups. It is therefore possible that the approval of the Groat Estate plan in 1977 gave some encouragement to families to move into the neighbourhood. The reconversion data presented in section 5.3.2 also tend to complement such an interpretation. The data on household types, on the other hand, point in the opposite direction. In fact, the proportion of one-family households fell throughout the period of the study, although the decrease was greatest between 1971 and 1976 (from 63% to 48%). Thereafter it slowed substantially (Figure 32), which could be related to the approval of the Groat Estate plan in 1977. It is also possible that some single persons were moving into the neighbourhood, buying houses, then sharing them with friends. In such cases houses could be reconverted, but they would not be occupied by family households.

The percentage of owner-occupied dwellings also fell between 1971 and 1976 (Figure 33), reflecting the pressure for rental accommodation that accompanied the economic boom years of the 1970s. By 1986, however, owner-occupancy had rebounded almost to the 1971 level. Once again, this suggests that the environment for family-oriented housing improved in Groat Estate after the plan came into force. Similar, if weaker, evidence is provided in Figure 34. This shows that the percentage of non-movers fell between 1971 and 1981 (from 43% to 39%), but then was virtually unchanged between 1981 and 1986. In comparison with the metropolitan area, Groat Estate has had a less stable population than the Edmonton norm, but the 1986 data may indicate that it is becoming more stable. The rate of population turnover continues to be high, however; according to the questionnaire survey, 40% of the respondents had lived in Groat Estate for five years or less (Appendix 4).

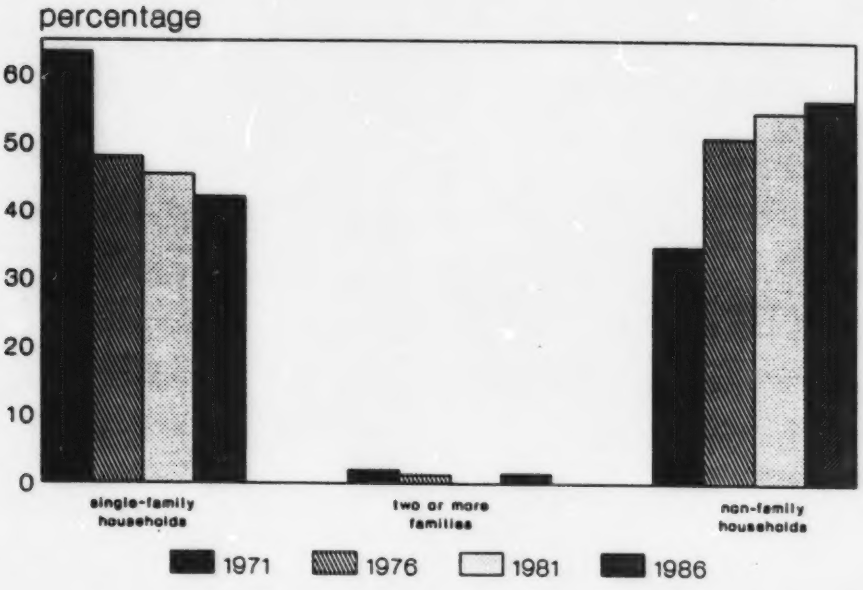


Figure 32. Types of Households in Groat Estate 1971-1986

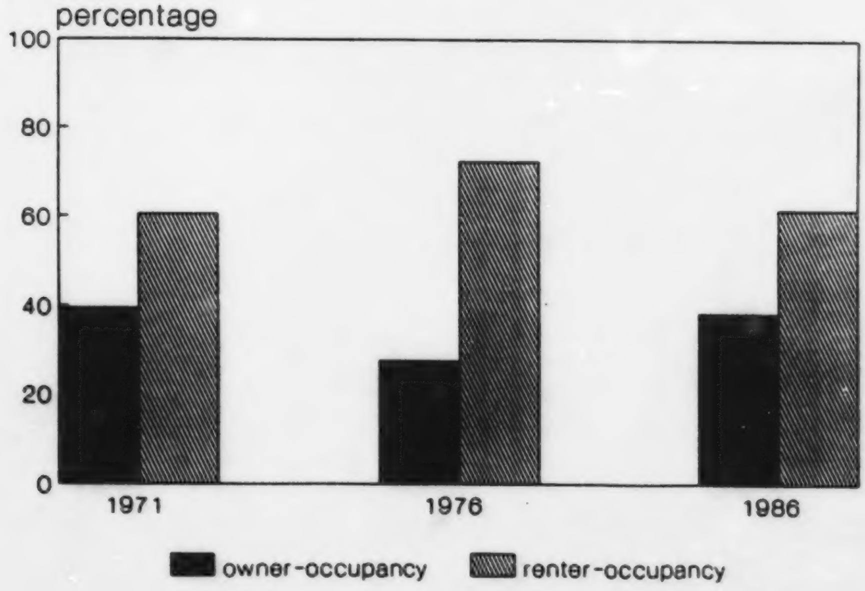


Figure 33. Occupancy Type in Groat Estate 1971-1986

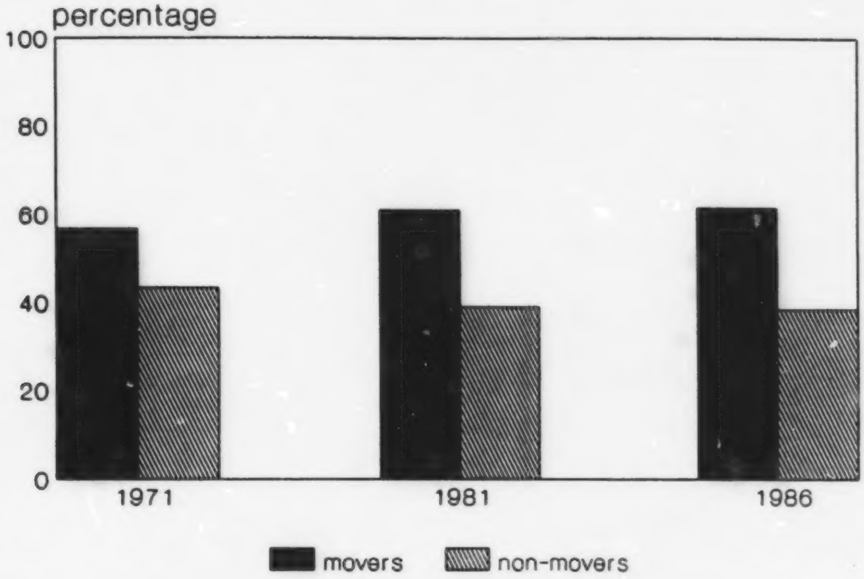


Figure 34. Mobility Status in Groat Estate 1971-1986

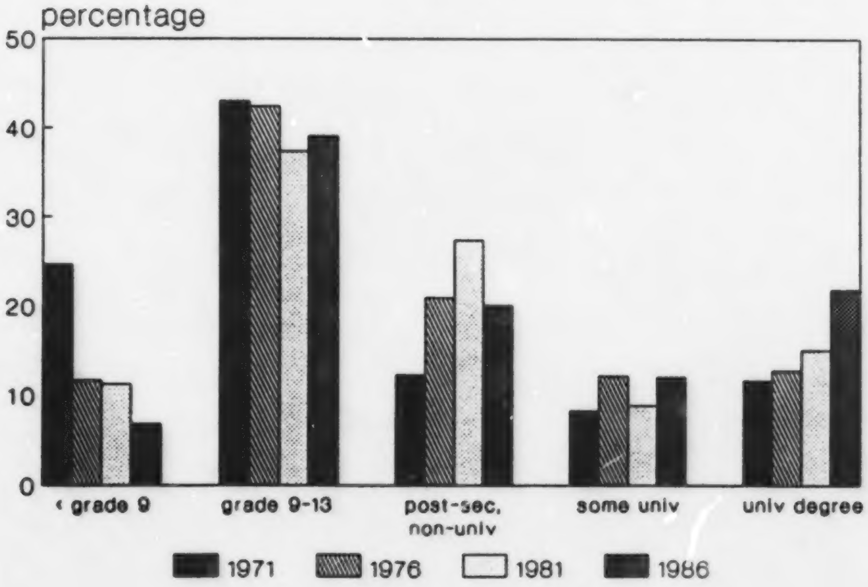


Figure 35. Educational Attainment in Groat Estate 1971-1986

The educational attainment data reveal that throughout the study period a large proportion of the Groat Estate residents had a university degree. The percentage rose from 12% in 1971 to 22% in 1986 (Figure 35). The comparable increase for the metropolitan area as a whole was from 6% to 12%. This suggests that Groat Estate has always contained a relatively highly educated population, but that it experienced a particularly substantial rise between 1981 and 1986. Similarly, when occupational status is considered, it is revealed that the percentage of professionals in Groat Estate increased from 30% in 1981 to 38% in 1986 (Figure 36), a proportional increase of 26%. In the same period, the equivalent metropolitan increase was less than 7%. Taken together, these suggest that Groat Estate underwent a substantial rise in social status in the period after the neighbourhood plan was approved. The social status indices for 1971 and 1986 were 19 and 30 respectively, representing an increase of 11 points as compared with 7 points for the Edmonton metropolitan area (Figure 37).

The increase in social status suggested above appears to be supported by data on average family income (Table 7). Between 1971 and 1986, the percentage increase in Groat Estate was 58%, compared with a 27% increase for the metropolitan area. Until 1981, the Groat Estate average was below that of Edmonton, but in the following five years it rose to a level substantially above the city-wide average. This was also the period in which the greatest increases in educational and occupational status were recorded.

Overall, then, the population data indicate that while Groat Estate was already a relatively high-status neighbourhood in 1971, its social status appears to have risen through the course of the study

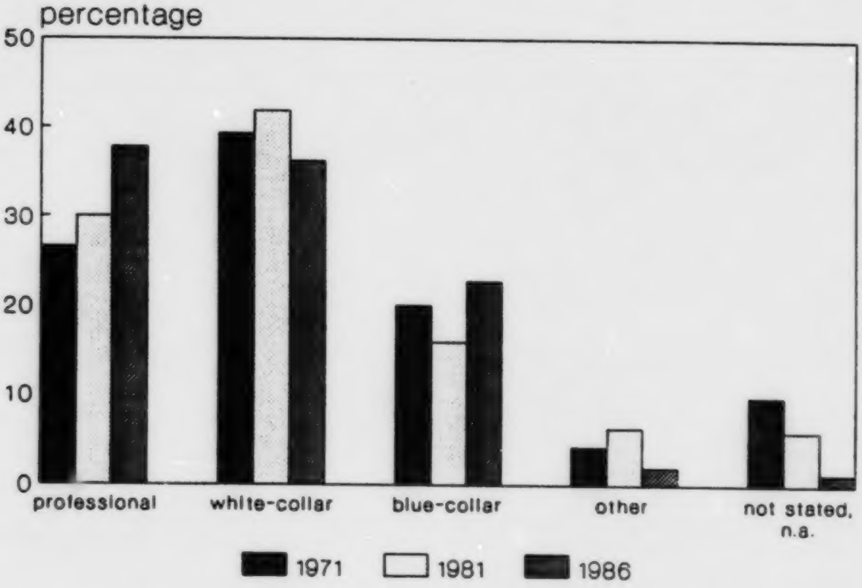


Figure 36. Occupational Status in Groat Estate 1971-1986

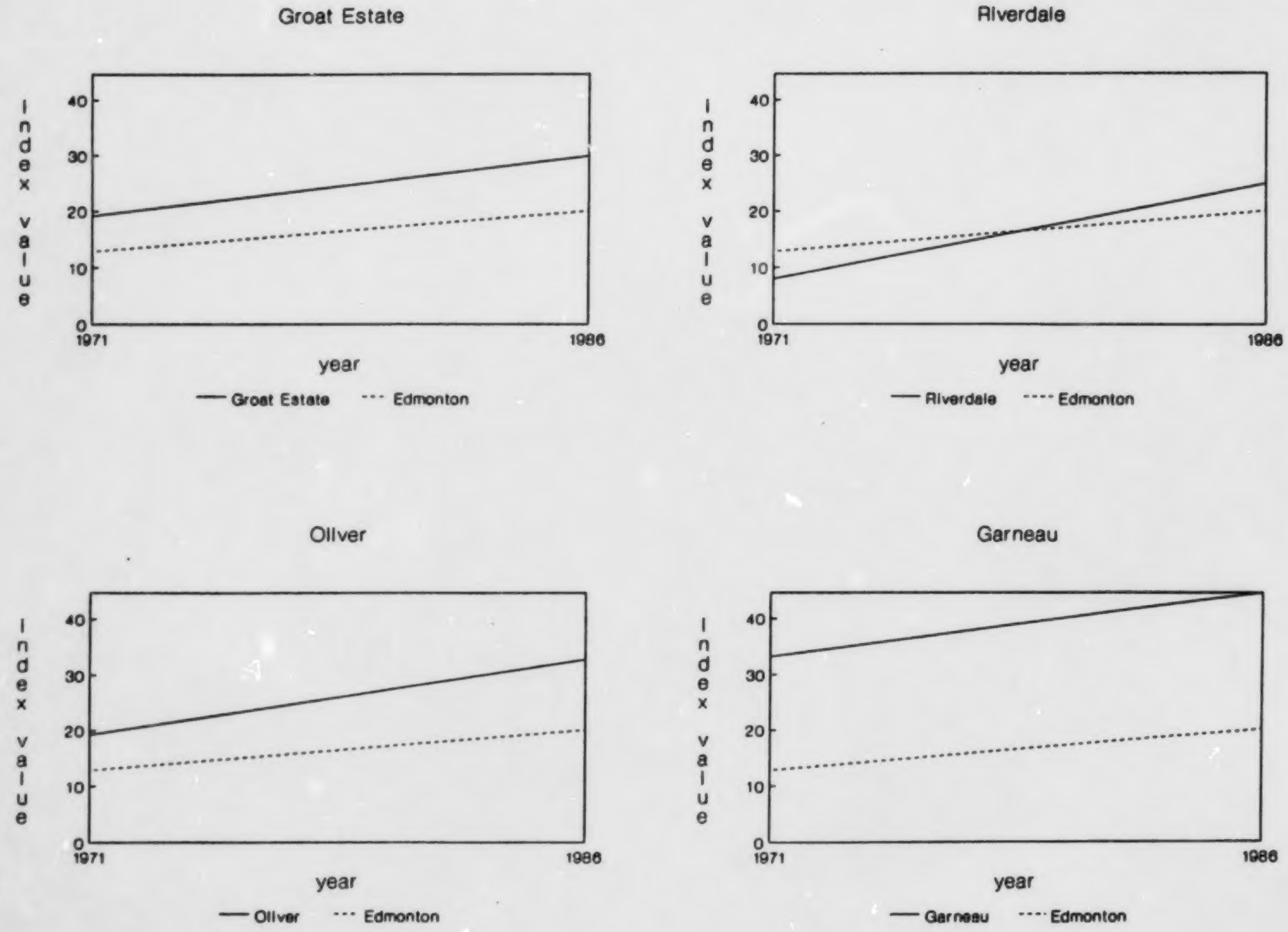


Figure 37. Social Status Index Change in the Study Areas 1971-1986

Year	Groat Estate	Garneau	Oliver	Riverdale	Edmonton
1971	9,724 -	10,558 -	10,857 -	6,720 -	10,732 -
1981	12,520 (29,856)	12,189 (29,066)	12,678 (30,233)	9,959 (23,750)	13,418 (31,998)
1986	15,362 (47,009)	12,558 (38,430)	13,892 (42,510)	10,128 (30,994)	13,621 (41,681)
% increase 1971-1986	58%	19%	28%	51%	27%

Note: the figures in parentheses are the unadjusted values

Table 7. Average Family Income in the Study Areas in 1971, 1981 and 1986, in 1971 Dollars

period, and particularly since 1981. That, in turn, can be taken to mean the neighbourhood was becoming more exclusive than socially mixed. The land use and renovation data further indicate that the area did not undergo extensive apartment redevelopment and that the single-family housing stock was considerably improved. In sum, these data suggest that Groat Estate has been undergoing a form of revitalization characterized by rising social status, the reconversion of houses to single-family use, a substantial amount of large-scale renovation, and a small amount of infill redevelopment. The probable explanation for these changes is that the proximity of Groat Estate to Old Glenora, one of Edmonton's best established high-status neighbourhoods, and to the downtown core, has enhanced its image as a desirable residential location. At the same time, the population data lend weight to the view that, in the period after the Groat Estate plan came into force, a climate of stability was created which contributed to the neighbourhood's favourable image. In turn, new residents were encouraged into the neighbourhood. Although the mobility status data do not indicate that this was at the cost of displacement, the reconversion and infill redevelopment data indicate a reduction in the stock of rental accomodation, and that logically suggests that there must have been displacement of tenants.

5.5.2 Riverdale

From 1971 until 1976, Riverdale experienced a decrease in the percentage of children under ten years old, as well as the percentage of senior citizens (Figure 38). In addition, the total population of the neighbourhood fell by 44% from 1,970 in 1971 to 1,110 in 1976. These trends reflect the general malaise that afflicted the area in the early

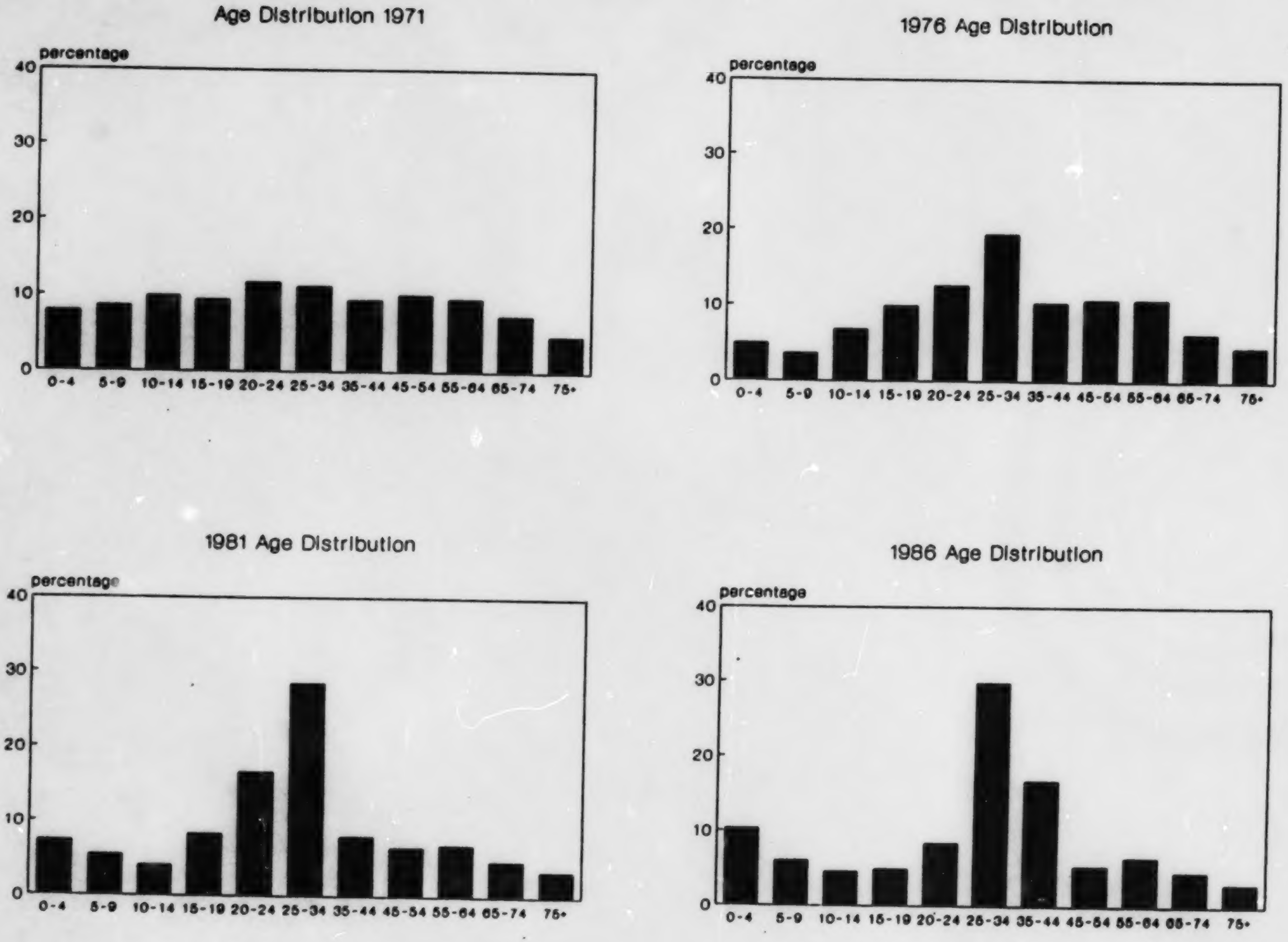


Figure 38. Riverdale Age Distributions 1971-1986

1970s, while it was under threat from the City's river valley parks policy. As civic officials purchased houses with the aim of demolishing them in the future, so residents left the neighbourhood. Only the young adult population between 25 and 34 years old showed substantial relative growth, no doubt because of the City's policy of renting out, at modest rates, the houses they had purchased. Once the Riverdale plan was approved, the area began to become more attractive as a family neighbourhood. This is demonstrated by the rising percentage of pre-school age children, from 5% in 1976 to 10% in 1986, combined with a 30% increase in total population from 1,110 to 1,445 over the same period. The population of Riverdale has become younger as well, and the percentages of senior citizens decreased throughout the study period. Here, too, reconversion and infilling reduced the amount of rental accomodation available and must have resulted in displacement of renters. At the same time, young families were taking up vacant houses and, as pointed out in section 5.3.3, infilling was occurring on cleared lots. Thus, to some extent, the newcomers could be accommodated without displacing existing residents. The data on the types of households lend further weight to this interpretation (Figure 39). From 1971 to 1976, the percentage of one-family households fell from 63% to 48%. By 1981, however, it had increased to 59%, and that trend continued to 1986 (65%).

Meanwhile, the proportion of owner-occupied dwellings fell from 66% in 1971 to 52% in 1986 (Figure 40). The decrease was greatest while the river valley policy was still in effect, but the small decrease after 1976 may be explained by the fact that the City of Edmonton continued to purchase houses in the area, and to rent them out, for some

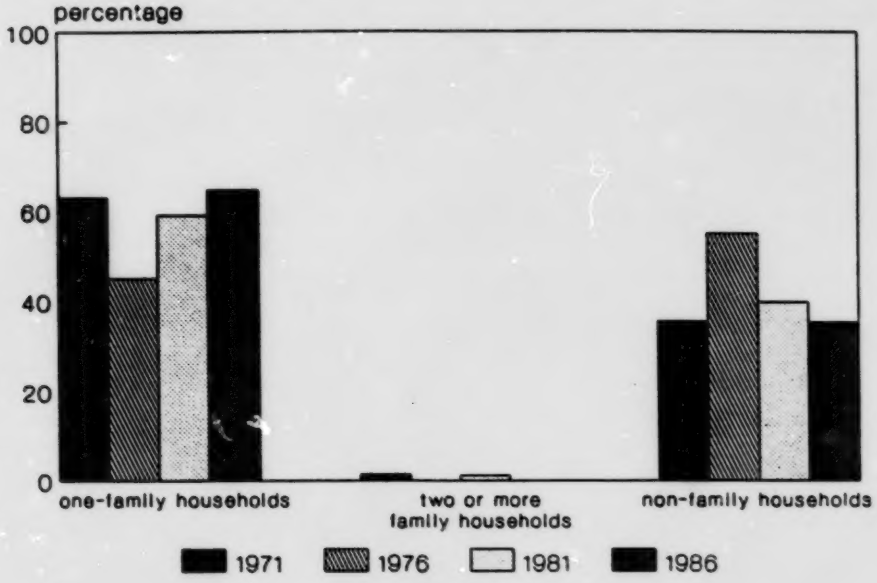


Figure 39. Types of Households in Riverdale 1971-1986

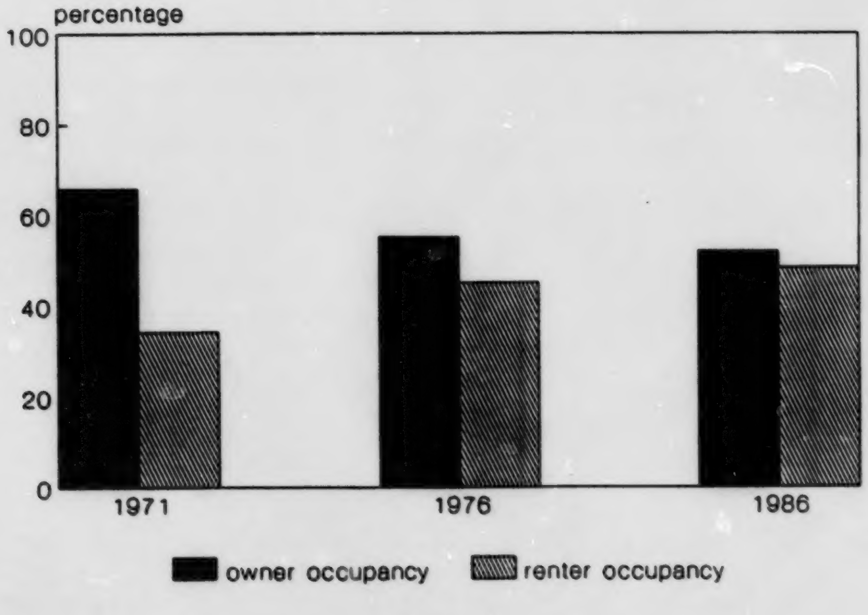


Figure 40. Occupancy Type in Riverdale 1971-1986

time after the Riverdale plan was approved. The percentage of non-movers likewise fell sharply between 1971 and 1981, from 46% to 37% (Figure 41). It then recovered slightly to 39% in 1986, to give some evidence of increasing residential stability. The survey respondents' length of residency indicated that more than half of them had lived in the neighbourhood for five years or less, indicating that Riverdale has continued to grow in popularity as a place to live.

Traditionally, Riverdale was a neighbourhood of modest social status, characterized by a predominantly working class population. Accordingly, the percentage of the population that had received a university degree was only 3% in 1971 (Figure 42), as compared with 6% of the metropolitan population. By 1986, however, that relationship was reversed; the percentage of the Riverdale population with a degree had risen to 14%, as compared with 12% city-wide. Similarly, in 1971, Riverdale was characterized by a low percentage of residents in the professional occupational category. The white-collar category then accounted for 43% of the residents, while 27% were in the blue-collar group (Figure 43). The latter group actually increased in relative terms between 1971 and 1981, a time of declining population, perhaps indicating that blue-collar households found it difficult to relocate. Conversely, the small increase in the professional group must capture the beginnings of a movement into Riverdale that gained force between 1981 and 1986, when the percentage of the population in the professional category rose sharply, to 36%. The occupation and education data therefore suggest that Riverdale underwent a quite substantial rise in social status between 1981 and 1986. A similar tendency can be inferred from income trends as well. Average family income in Riverdale has

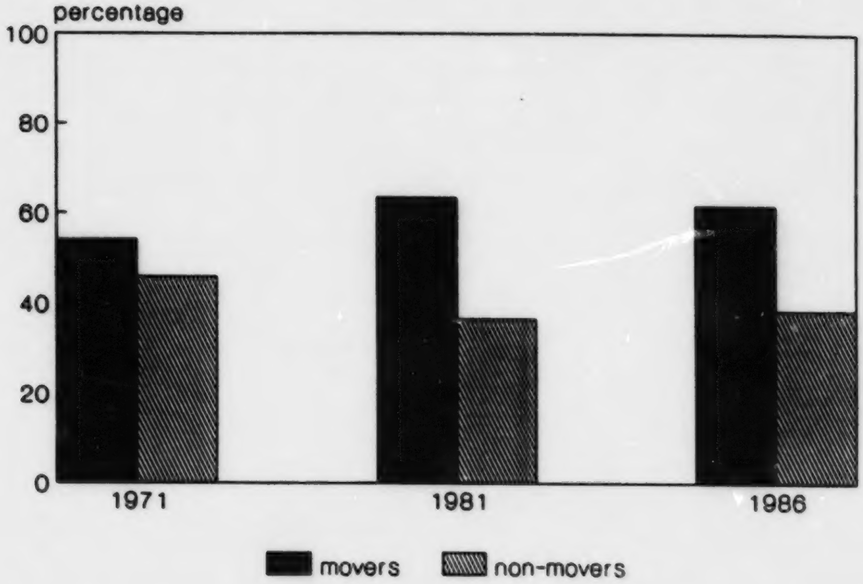


Figure 41. Mobility Status in Riverdale 1971-1986

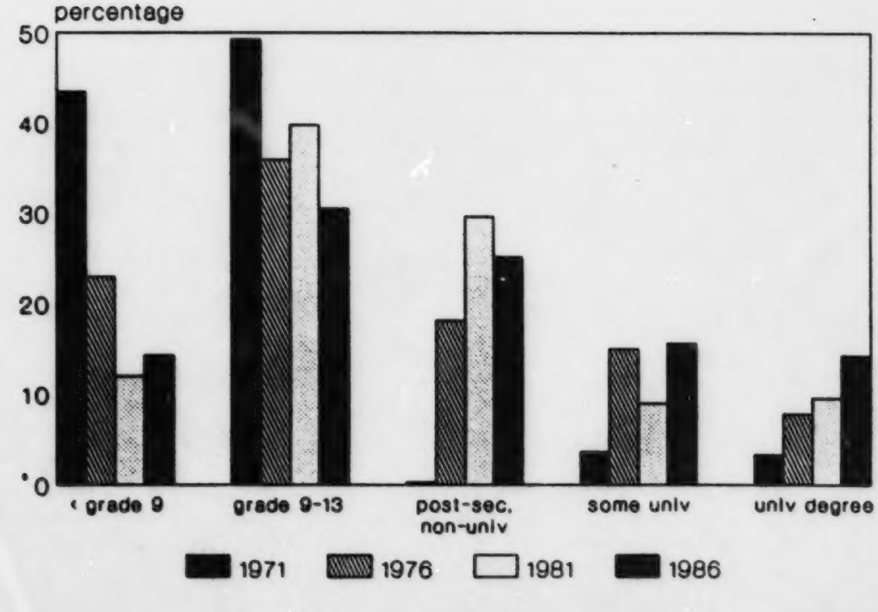


Figure 42. Educational Attainment in Riverdale 1971-1986

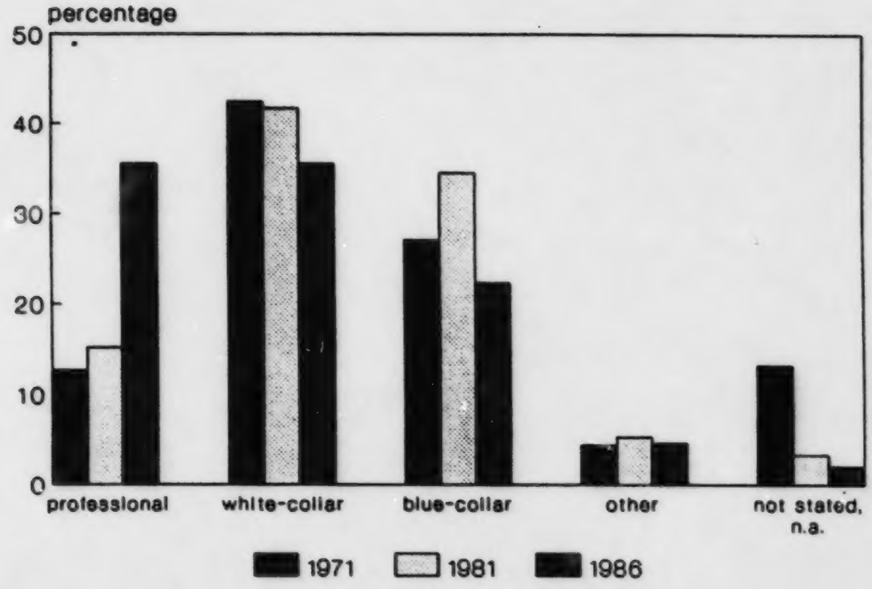


Figure 43. Occupational Status in Riverdale 1971-1986

lagged behind the average for the Edmonton metropolitan area throughout the period of the study, but the percentage increase was 51%, compared with a 27% increase city-wide (Table 7). This was the second largest increase among the four study areas.

Riverdale's indices of social status for 1971 and 1986 are 8.0 and 25 respectively (Figure 37). The point difference of 17 is the largest among the four study areas. When combined with the land use and renovation data, then, it is clear that Riverdale has undergone substantial physical and social changes, particularly in the period since the neighbourhood plan came into effect. These changes have involved its transformation from a declining blue-collar area into an increasingly middle-class one, undergoing physical revitalization mainly in the form of infill duplex and single detached house construction, supplemented by some renovation of the surviving housing stock. The demographic changes correspond to those normally associated with gentrification, but the housing changes do not. That, however, reflects Riverdale's unusual history and the extensive demolitions that occurred under the river valley policy. If any of the study areas can be characterized as experiencing a form of gentrification it is Riverdale.

5.5.3 Oliver

The age distribution in Oliver features a disproportionately high percentage of young adults throughout the study period (Figure 44). The pre-school (0-4 years) age group was always relatively small and it decreased between 1971 and 1981, from 5% to 2%, before recovering slightly to 3% in 1986. Compared with the metropolitan norms, all the age groups under 20 years old are underrepresented in Oliver.

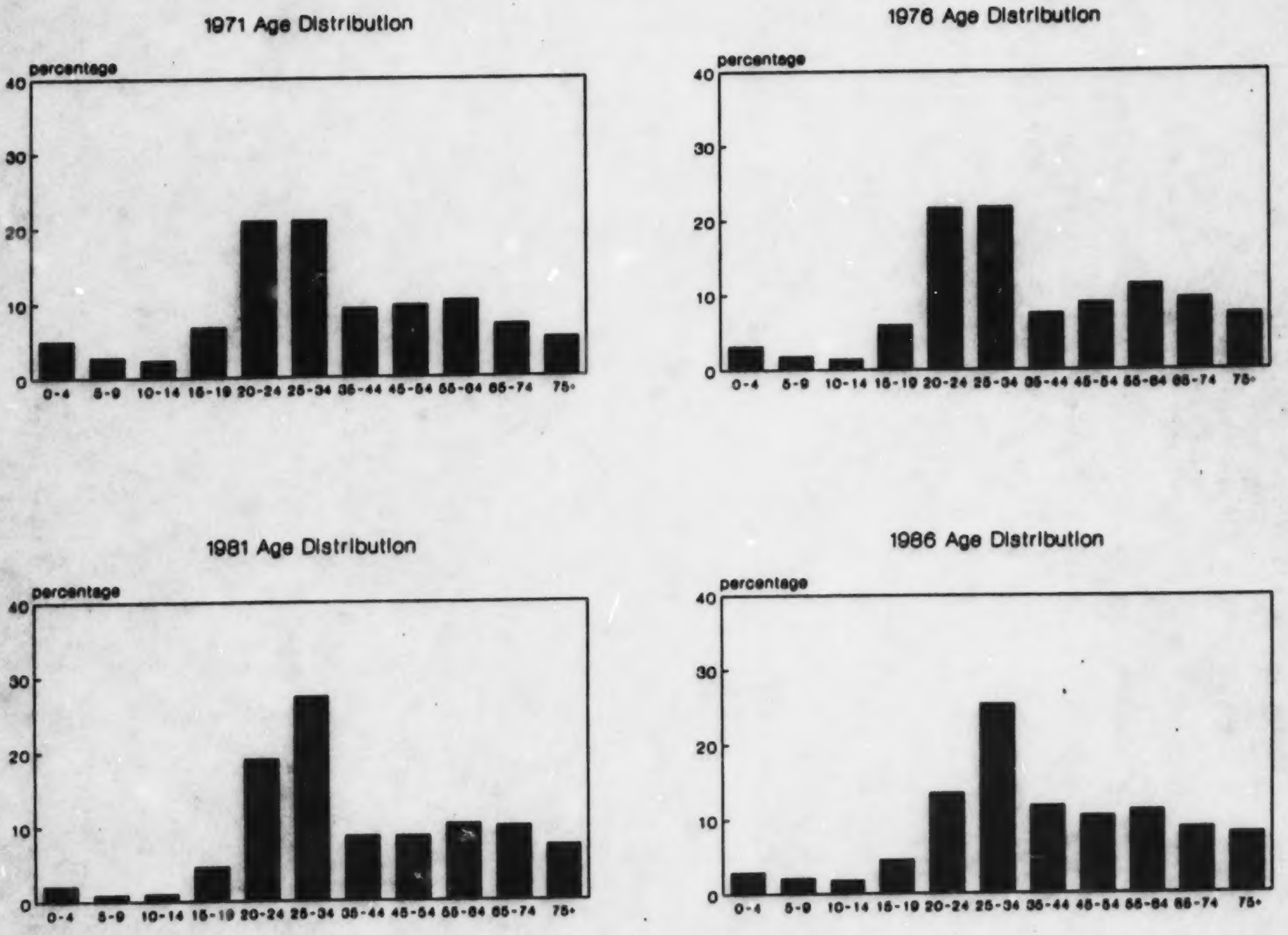


Figure 44. Oliver Age Distributions 1971-1986

Non-family households are in the majority in Oliver, though the percentage of one-family households increased from 30% in 1981 to 36% in 1986 (Figure 45). In the metropolitan area over the same period, the percentage of one-family households (70%) did not change. The increase in Oliver may be attributed to the process of condominium conversion, whereby couples, usually without children and often in the late stages of the family life cycle, have purchased dwellings in what were formerly highrise apartment buildings (Smith and Hayter, 1974). In turn, this would help to explain why the increase in one-family households was accompanied by a continuing decrease in the proportion of children in the area. Nevertheless, Oliver continues to be predominantly an area of non-family households.

The increase in condominium units in Oliver is supported by the occupancy data. Only 6% of all dwellings were owner-occupied in 1971; by 1986 19% were (Figure 46). The land use data presented in section 5.3.3 demonstrated that Oliver has been largely redeveloped and that there are few houses remaining that are suitable for residential purposes. It is therefore likely that the increase in the percentage of owner-occupiers is due to the process of condominium conversion, supplemented by a limited amount of redevelopment in the form of luxury row-houses and low-rise condominium buildings. Despite these trends, however, Oliver remains, overwhelmingly, an area of rented apartments.

The percentage of movers decreased from 83% in 1971 to 70% in 1986 (Figure 47), but the majority of the population continues to be relatively transient, as might be expected in an area that has experienced a great deal of apartment redevelopment. That carries through to the residents of the surviving houses as well, since almost

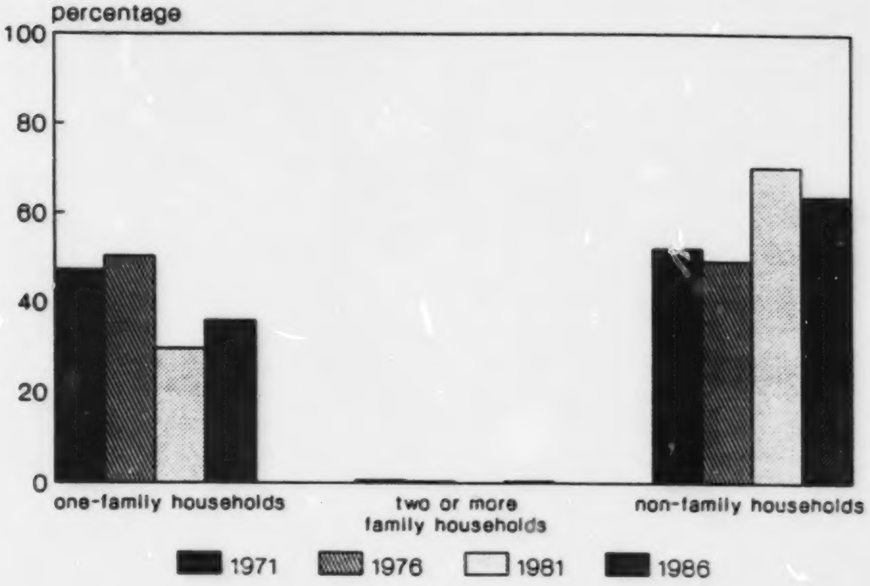


Figure 45. Types of Households in Oliver 1971-1986

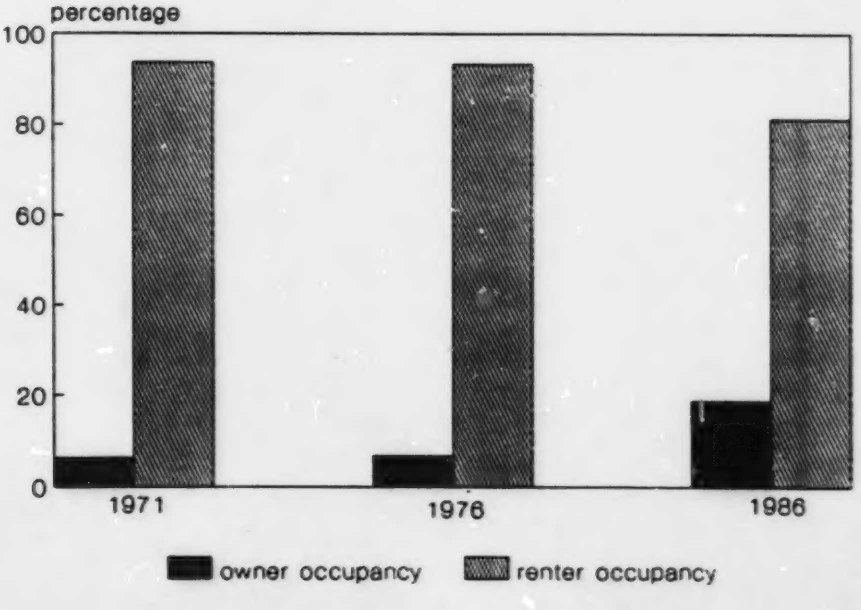


Figure 46. Occupancy Type in Oliver 1971-1986

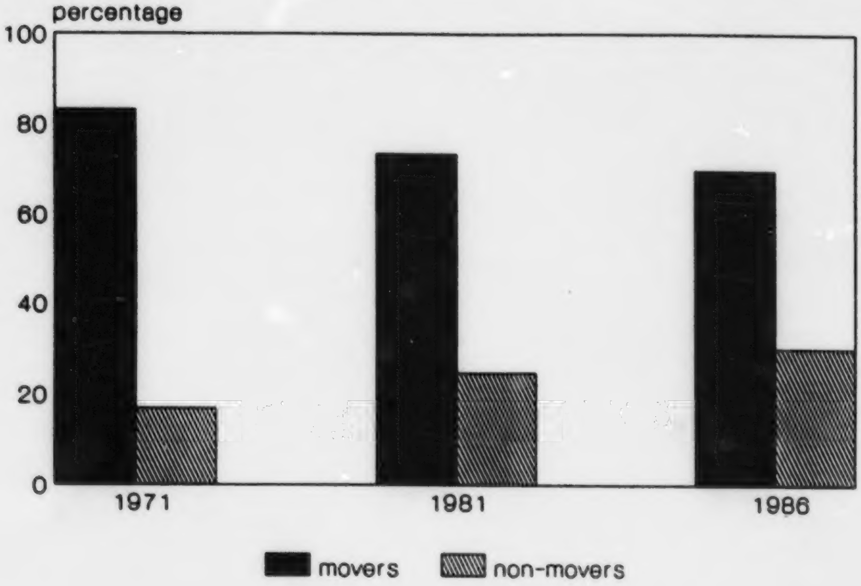


Figure 47. Mobility Status in Oliver 1971-1986

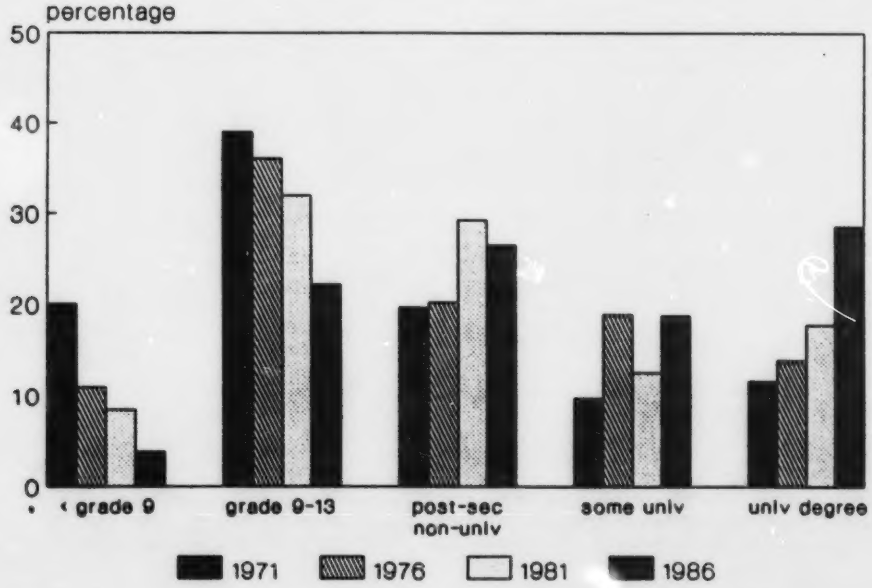


Figure 48. Educational Attainment in Oliver 1971-1986

two-thirds of the survey respondents had lived in the neighbourhood for five years or less and 60% of them were renters. Furthermore, even the small signs of stability after 1981 can probably be attributed more to the economic recession than to the influence of the Oliver plan. While hard data were not available to permit the extent of displacement to be determined, it is logical to expect that the reconversion of some houses to single-family use and the conversion of others into business premises, led to the displacement of some renters living in the family housing stock.

Oliver has housed a highly educated population throughout the study period (Figure 48). The percentage of residents with a university degree increased modestly from 12% in 1971 to 18% in 1981. Then, between 1981 and 1986, the percentage increased sharply to 29%, which was well above the metropolitan norm of 12%. A similar trend occurred in the professional occupational category in Oliver (Figure 49). Following a decrease between 1971 and 1981, when professionals represented 24% of the working population, there was a substantial increase to 37% in 1986. In the same year, professional occupations accounted for 28% of the metropolitan labour force. These figures reflect the increasing popularity of Oliver as a place for young professionals and white-collar workers to live.

Both education and occupation point to a substantial rise in the social status of Oliver's population, particularly after 1981 when the neighbourhood plan was approved. Yet, this pattern does not appear to be reflected in the average family income data (Table 7). The percentage increase in the average family income between 1971 and 1986 was 28%, which was almost identical to the city-wide increase over the same

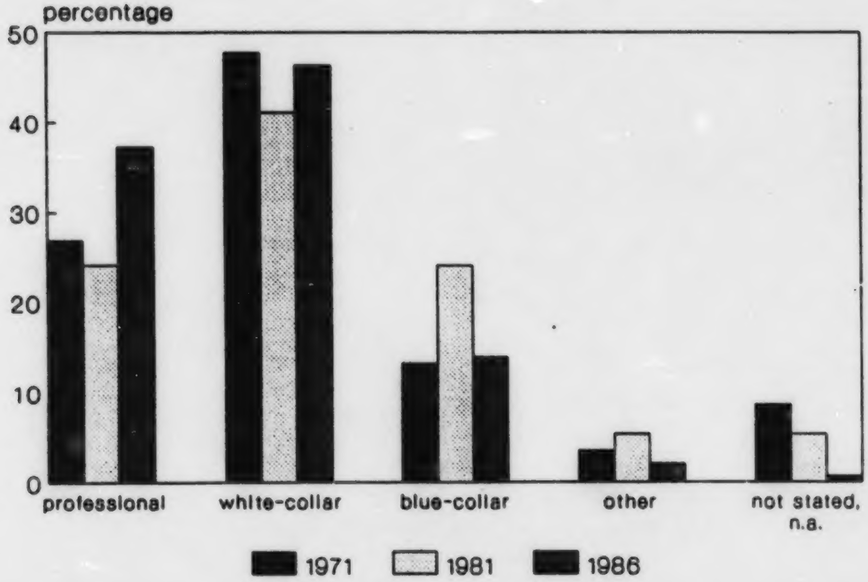


Figure 49. Occupational Status in Oliver 1971-1986

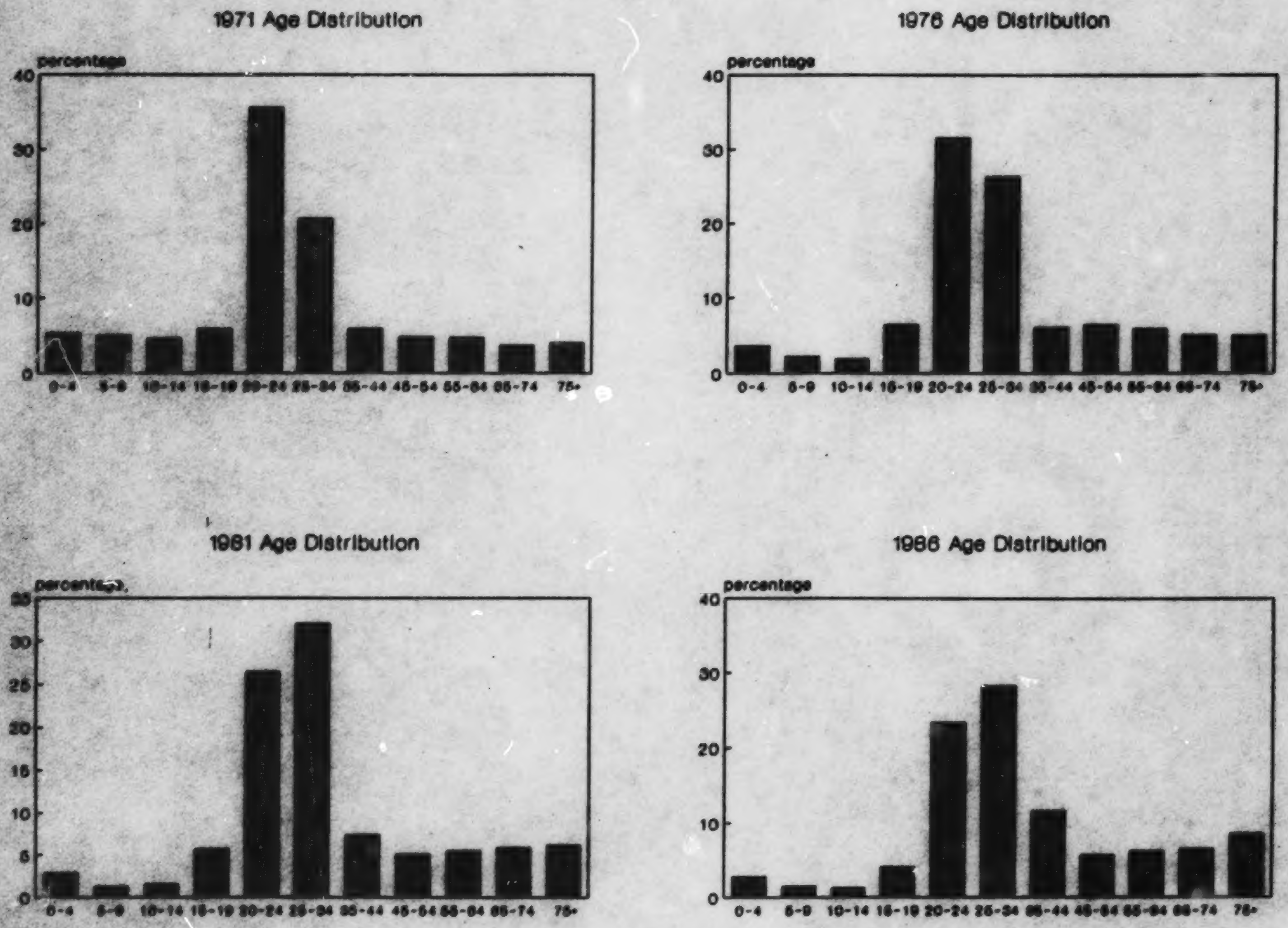
period. This may be explained by the large percentage of young adults in Oliver, most of them still in the early stages of their careers before they had reached their full earning potential (Statistics Canada, 1989). At the same time, the social status indices for 1971 and 1986 were 19 and 33 respectively (Figure 37), an increase of 14 points. This represents a greater increase in social status than in Groat Estate (11 point increase), or the Edmonton area in general (7 point increase).

On balance, the data do not support the idea that there has been an increased mix of social groups in Oliver. On the contrary, they reveal that Oliver has continued to be characterized by a relatively young and increasingly high-status population, living mainly in rented apartments. Overall, the trends in the census data are matched by the characteristics of the residents in the surviving houses. The survey responses indicate that the majority of them are high-status newcomers, living in rented houses, often with room-mates. This is consistent with the land-use and renovation data which indicated that very little infilling has occurred and that the bulk of the surviving houses are rental properties that were renovated by absentee landlords. While there are some modest signs of increasing stability between 1981 and 1986, the increases in the percentages of one-family households and owner-occupiers probably represent those higher status residents who are able to afford condominiums or the expensive town houses that are starting to appear in the neighbourhood.

5.5.4 Garneau

Garneau's age distribution data reveal that it had a lower percentage of children than the Edmonton metropolitan area throughout the study period. The pre-school (0-4 years) category also experienced a relative decrease between 1971 and 1986 (from 5% to 3%), although the group remained stable between 1981 and 1986 (Figure 50). In contrast, the neighbourhood has been characterized by a large, and increasing, percentage of young adults, between 20 and 34 years old. This may be explained by the proximity of the University of Alberta, and the large number of walk-up and high-rise apartments that house students, university staff, and employees of the nearby Walter C. McKenzie Health Sciences Center. The percentage of senior citizens in Garneau has also been growing at a faster rate than that of the metropolitan area. In 1971, residents over 65 years old accounted for 8% of the neighbourhood population, but by 1986 this figure had risen to 15%. These people probably represent the long-term incumbent population, some of whom live in the remaining stock of houses, while others have returned to the area to live in apartments or purpose-built senior citizens residences (Smith and Hayter, 1974; Statistics Canada, 1989). That can be interpreted as an indication of increasing social diversity in Garneau.

In light of these demographic trends, it is not surprising to find that Garneau has a high and rising percentage of non-family households (Figure 51). They accounted for 47% of all households in 1971 and 73% in 1986. There was comparatively little change between 1981 and 1986 suggesting some stabilization, but Garneau nevertheless continues to be characterized by a disproportionately large percentage of non-family households when compared with the metropolitan area. The data on occupancy type support this characterization as well. Already in 1971, 82% of the dwelling units were renter occupied, and the proportion rose to 88% by 1986 (Figure 52), so it is apparent that rental occupancy is


1971 Age Distribution

1976 Age Distribution

1981 Age Distribution

1986 Age Distribution

Figure 50. Garneau Age Distributions 1971-1986

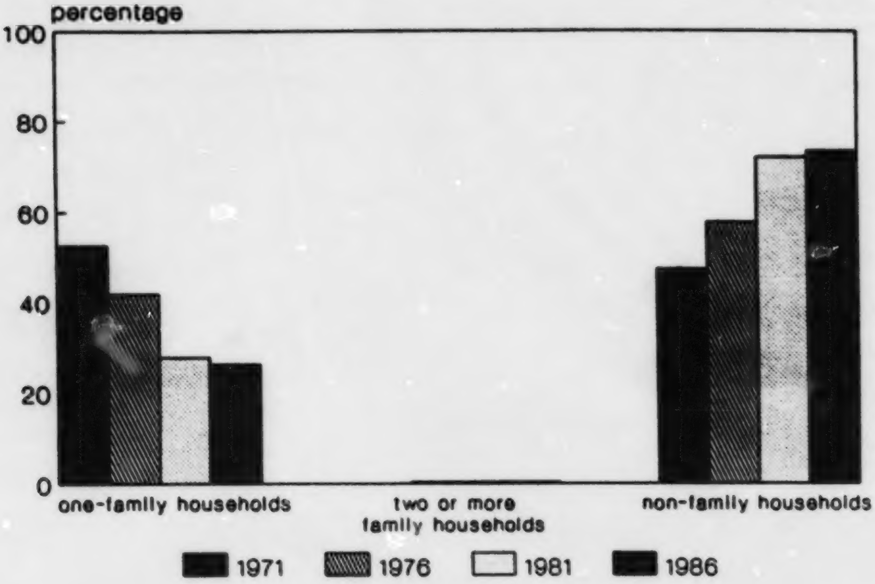


Figure 51. Types of Households in Garneau 1971-1986

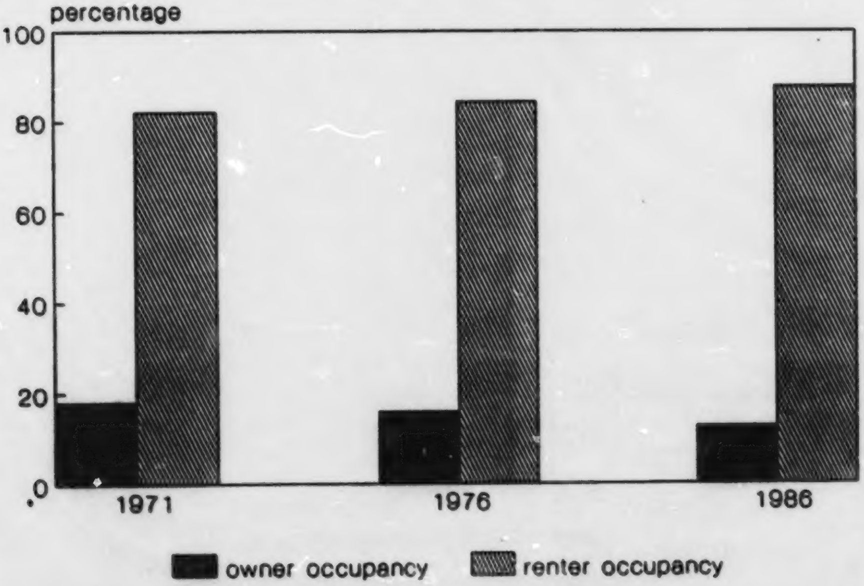


Figure 52. Occupancy Type in Garneau 1971-1986

much more widespread in Garneau than in the metropolitan area as a whole. Since 1971, as well, Garneau's population has included higher percentages of movers than in the metropolitan area, though the percentage fell from 82% in 1971 to 75% in 1986 (Figure 53). The survey respondents' length of residency indicates that more than half of them had lived there for five years or less. Because the survey was aimed at those living in houses only, that result may reflect in-migration by newcomers encouraged to move into houses in Garneau in the period after the plan came into force. When that is combined with the reconversion and infilling data, it is logical to expect that rental accomodation was reduced and that tenants were forced to look for alternative housing. The census data, however, do not indicate that displacement increased after the plan was introduced, since the percentage of non-movers increased between 1981 and 1986. Clearly a population turnover has occurred, but at the same time the period since 1981 has been marked by modest signs of enhanced stability.

Throughout the study period, Garneau had a higher percentage of highly educated residents than the whole metropolitan area. Between 1971 and 1981, the percentage of Garneau residents who held a university degree increased from 23% to 42%, before falling slightly to 38% in 1986 (Figure 54). Over the same period, the Edmonton norm increased from 6% to 12%. The rise in educational attainment was matched by occupational status, though particularly after 1981 in this case (Figure 55). Between 1971 and 1981 only the blue-collar category increased, but then, between 1981 and 1986, the professional category increased substantially, from 43% to 51%. In the census metropolitan area, the professional category increased from 27% to 28% over the same period. Average family incomes,

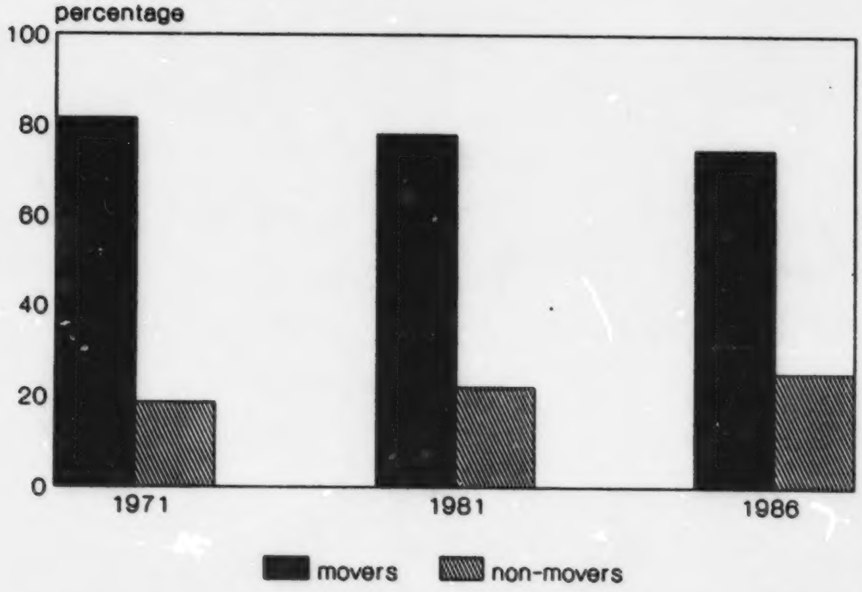


Figure 53. Mobility Status in Garneau 1971-1986

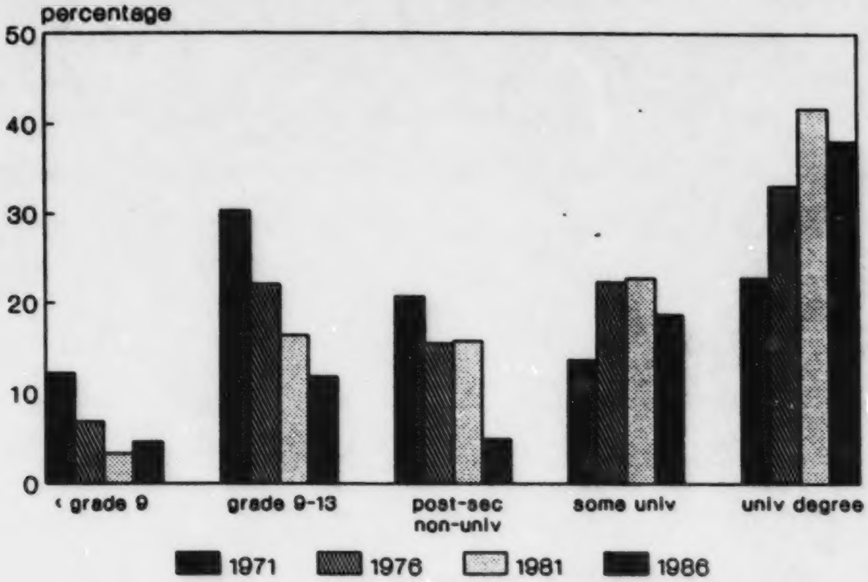


Figure 54. Educational Attainment in Garneau 1971-1986

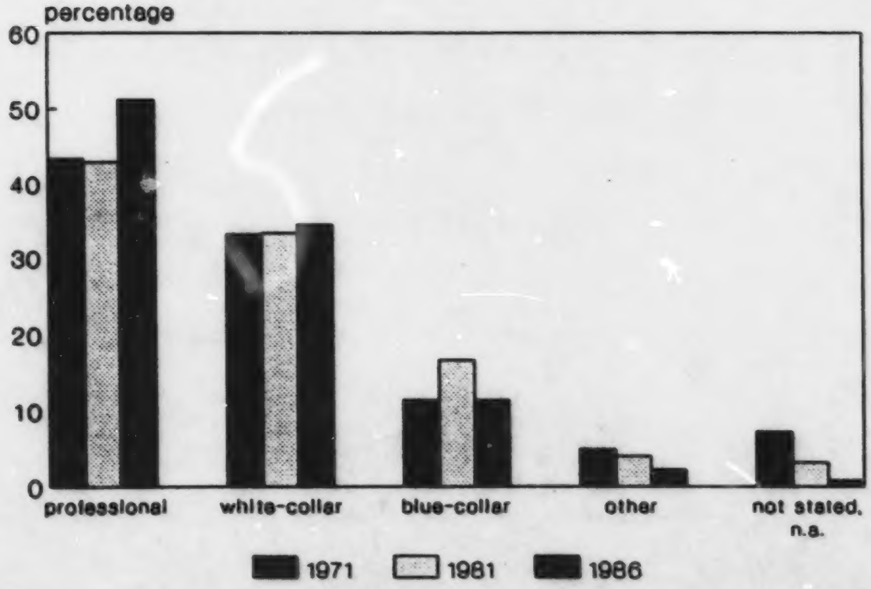


Figure 55. Occupational Status in Garneau 1971-1986

by contrast, were slightly lower in Garneau than in the metropolitan area throughout the period 1971-1986 (Table 7). Incomes did rise, but not in proportion to the increase in social status. One explanation is that, like Oliver, many of the well-educated professionals were young and had not reached their full earning potential (Statistics Canada, 1989).

The social status indices for 1971 and 1986 were 33 and 45 respectively, representing a 12 point increase in the index for the neighbourhood, compared to a 7 point increase in the Edmonton metropolitan area over the same period (Figure 37). Together, the data suggest that Garneau has undergone a greater increase in social status than Edmonton as a whole. The rise was particularly marked between 1981 and 1986, suggesting that the neighbourhood became more exclusive than socially mixed in the period after the Garneau plan was introduced.

As a result of apartment redevelopment, Garneau is now characterized by a large percentage of young, well-educated professionals, living in non-family households and in rented accommodation. As in Oliver, however, information about house residents tends to become lost in the census data. The survey responses suggest that the majority of them had been resident in Garneau for five years or less, lived in family households and were owner-occupiers. Moreover, the majority had obtained at least a university degree and a quarter of them were in professional occupations. Together with the renovation data, this suggests that the family housing stock in Garneau has undergone revitalization characterized by in-migration of high-status families who have carried out a variety of mainly small-scale renovations on their houses.

5.5.5 Implications for Research Question Three

Interpretation of the data on demographic and social change is complicated by the fact that some indicators may point to an increase in social mix while others suggest the opposite. In terms of social status, for example, all four of the study neighbourhoods are becoming increasingly exclusive, but in terms of household and occupancy types they appear to be moving towards a greater mix. The source of this problem lies in the ill-defined nature of social mix as a planning concept. Nonetheless, when combined with the land use and renovation data, the demographic trends reveal that complex and varied forms of revitalization have been under way simultaneously in all four study areas.

In the case of Groat Estate, it is evident that there was a substantial turnover of residents. As a consequence, on the basis of education, occupation and income, the neighbourhood became more exclusive in its social status, particularly in the period after its neighbourhood plan came into force. At the same time, the percentage of owner-occupiers increased between 1981 and 1986, suggesting a trend to mixing by that measure.

In Riverdale, too, for all its differences, similar patterns can be inferred. There had been displacement of a largely working-class population while the neighbourhood was under the threat of the river valley parks policy, but that trend was reversed after 1976. The total population increased, as did the proportions of pre-school age children and young adults, indicating that families moving into the neighbourhood. In addition, the percentage of dwelling units that were owner occupied recovered almost to the 1971 level. The most striking trend that emerges from the Riverdale data, however, is the rise in social status of the population between 1971 and 1986, indicating that the neighbourhood has become increasingly middle-class. In Riverdale, then, the demographic and social changes can justifiably be interpreted as evidence of gentrification, even though the improvements in the condition of the housing stock resulted more from infill redevelopment than from renovation of existing houses.

The data for Oliver indicate that the population, which was traditionally fairly high-status, became more exclusive than socially mixed in the period after the neighbourhood plan came into force. At the same time, the percentages of owner-occupiers and non-movers increased in the post-plan period, but this is interpreted as part of a process of condominium conversion, rather than revitalization of the family housing stock. Nonetheless, it does imply a trend to a more mixed population by those measures. Displacement was mainly a feature of the period of apartment redevelopment that preceded the approval of the Oliver plan, although business conversions and the reconversion of houses to single-family use invariably meant that some renters were displaced in the post-plan period. Increasing percentages of one-family households and non-movers indicate increasing stability after 1981, but that can probably be attributed more to the economic recession than to the influence of the Oliver plan. Oliver continues to be characterized by a young, increasingly high status, relatively mobile population of renters, a pattern that is carried through to the occupants of the surviving houses in the neighbourhood.

The same kind of population characterized Garneau in 1981, although the erosion of family households was reduced between 1981 and

1986, suggesting that families may have been coming to view the neighbourhood as a desirable place to live once again. The survey data on length of residency lend weight to that idea, since more than half of the respondents had lived in Garneau for five years or less, and more than two-thirds were owner-occupiers (see Appendix 4). Garneau was always considered to be a fairly high status neighbourhood, but the status of its residents has continued to rise, particularly between 1981 and 1986. That indicates that the neighbourhood became more exclusive than socially mixed after the neighbourhood plan came into force in 1982. Together, the land use, renovation, and demographic and social data suggest that the family housing stock experienced a form of revitalization that involved in-migration of high-status family households, many of whom undertook modest renovations to bring their houses up to contemporary standards.

In summary, it can be inferred that all four neighbourhoods underwent social upgrading, particularly in the periods after their respective plans came into effect. It is also clear, when social status is measured by education and occupation, that Groat Estate, Garneau and Oliver became more exclusive than socially mixed. There is no direct evidence that these changes were accompanied by displacement of the incumbent populations, but the reconversion and infilling trends in the post-plan periods meant that much of the affordable rental accomodation provided by converted houses was lost. That, in turn, means renters must have been displaced and forced into other, usually more expensive, accommodation. The situation is rather different in Riverdale, where social upgrading has actually resulted in a working-class neighbourhood becoming more socially mixed to this point. Over the long term, however, it is probable that Riverdale will continue to gentrify and thus become increasingly middle-class, if not exclusively so.

5.6 House Sales Activity in the Study Areas

As noted in section 3.4.3.4., neighbourhoods undergoing revitalization may experience disproportionate increases in the frequency and value of house sales that may indicate speculation in the housing market. Tax-roll cards contained in microfiche files, as well as computer records, both available at the city assessor's office, were therefore used to collect sales data for the case-study neighbourhoods. The dates of sales and, where available, the values of sales of every house included in the study were assembled. Again, particular attention is paid to patterns before and after the approval of the plans. The dates of sales were used to calculate the total numbers of sales per year from 1971 to 1986, in each of the four study areas. The aim was to reveal whether speculation, as measured by disproportionately large numbers of sales, increased after the plans came into effect. When the value of house sales was examined, particular attention was paid to evidence of unusually high values after the plans came into effect. These data will be used to answer the fourth research question: **Is there any evidence of speculation in the neighbourhood housing markets after the plans came into effect?**

5.6.1 Frequency of Sales

The data are expressed as frequencies rather than percentages of the total number of houses in each of the neighbourhoods, since the number of houses was not constant throughout the period of the study. The results (Figure 56) do not reveal any evidence of speculation in the

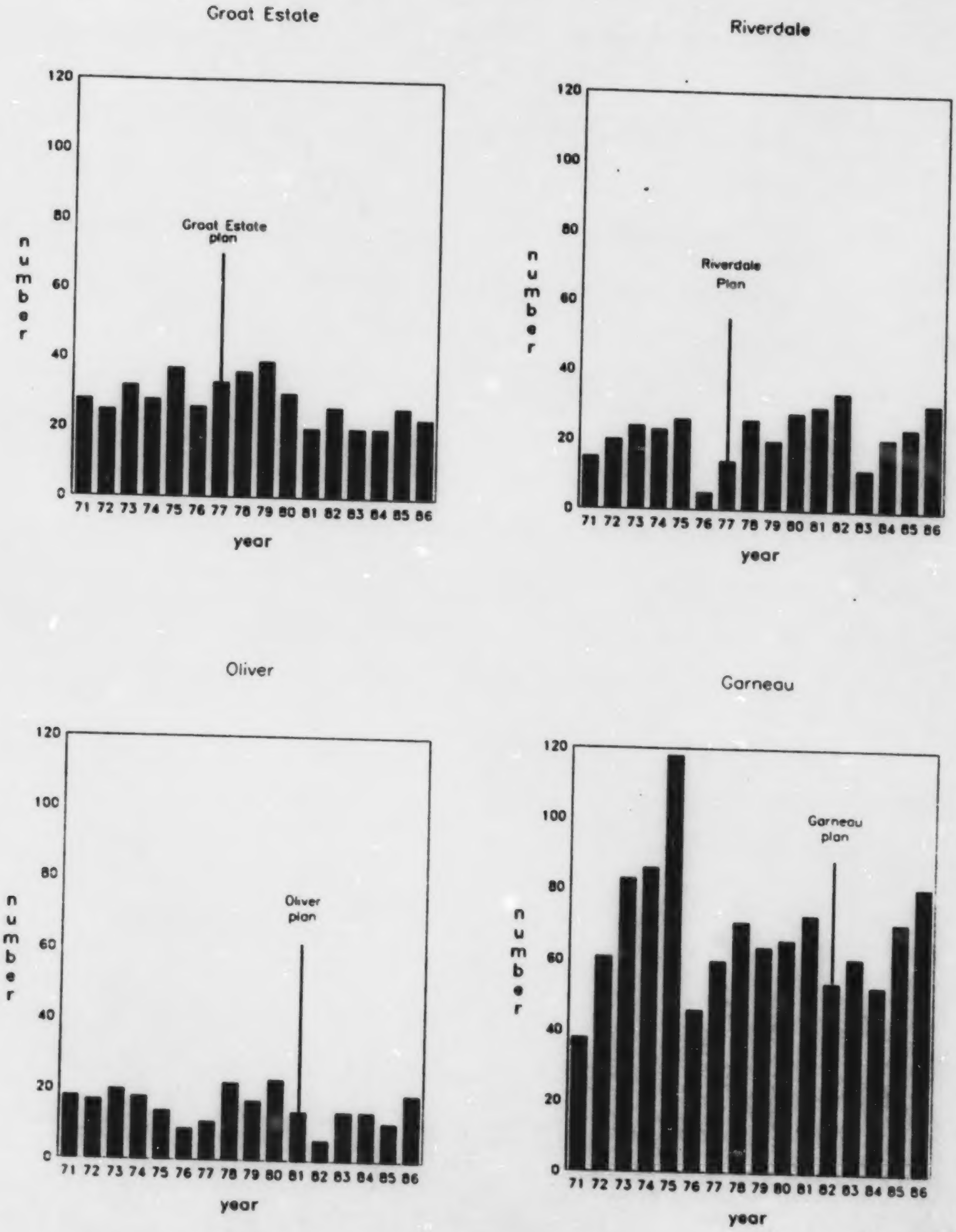


Figure 56. Total Number of House Sales Per Year in the Study Areas 1971-1986

periods after the plans came into effect. In Groat Estate and Oliver, the lowest levels of sales activity occurred after 1980, most likely reflecting the recession. In Riverdale, there is no clear trend in the data. The largest numbers of sales occurred in the period after the plan came into effect, but the increases are not enough to indicate speculation. Sales activity in Garneau was at its peak in the early 1970s, a period of intense redevelopment pressure, before falling in 1976. Modest increases were then recorded until 1982. The decrease in sales activity between 1981 and 1985 reflects the onset of the recession, although the effect was not as marked as the severity of the recession would have suggested. The increases that followed in 1985 and 1986 probably represent a modest economic recovery in Edmonton. It should also be noted that the data for Garneau do not represent proportionally more sales activity than in the other three study areas; it is just that it has more houses than the other neighbourhoods.

5.6.2 Trends in Sales Prices

The average sales prices for residential property in Edmonton between 1971 and 1986 were obtained from the Edmonton Real Estate Board. These figures include condominiums and duplexes in addition to single-family dwellings, because the data for the single-family dwellings were not recorded separately until after 1980. That serves to lower the overall city averages for each year by about $6000. The city-wide averages were then plotted against the average annual sales prices in each of the study areas for the period 1971 to 1986 (Figure 57). The aim was to determine if there there were disproportionate increases in the sales prices of houses in the study areas, since that could be an

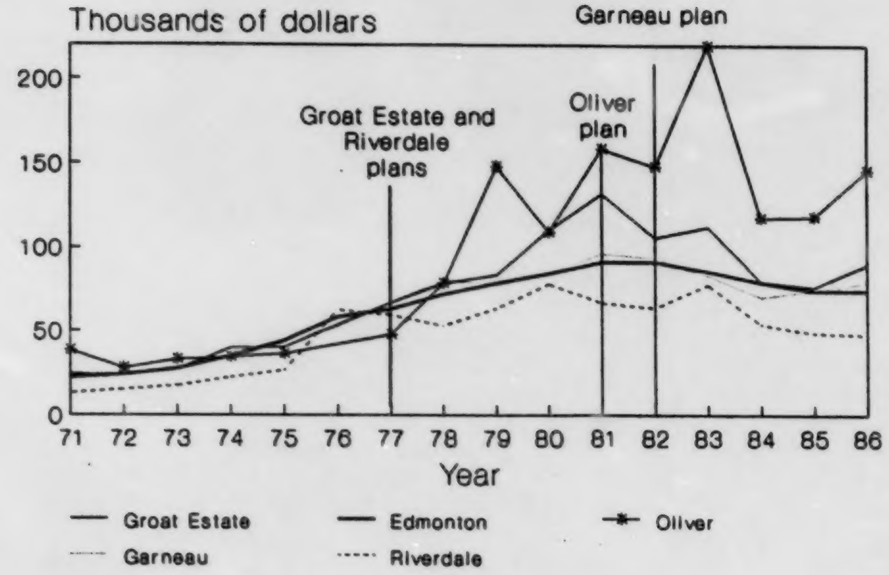


Figure 57. Average Annual House Sales Prices in the Study Areas and Edmonton 1971-1986

indication of speculation in the housing market, particularly after the neighbourhood plans came into effect.

Groat Estate followed the Edmonton average very closely until 1975, when the average sale price fell slightly below the city average. This may have been a result of uncertainty about the future of the area, during the period when the Groat Estate Residents' Association was lobbying for the preparation of a neighbourhood plan. By 1977, however, the year in which the Groat Estate plan was approved, the average sales price had risen slightly above the city average and it continued to rise until 1981. At the same time, it must be acknowledged that house prices were increasing citywide in the late 1970s and early 1980s, in response to Edmonton's booming economy. Then the real estate market collapsed in 1982, dragging average sales prices in Groat Estate down as well. This demonstrates the difficulty of separating the influence of neighbourhood plans from the economic climate in the city.

In Riverdale, prices were below the Edmonton average from 1971 to 1976. This may be explained in part by the quality of the houses in Riverdale, and in part by the proposed river valley bylaw which, if approved, would have resulted in the neighbourhood's disappearance. Houses in Riverdale were not regarded as an attractive investment by potential homeowners. In effect, the only available buyer was the City of Edmonton. In 1976, however, the year that the Riverdale plan was prepared, the average sale price rose sharply to a point just above the citywide average. This can only be explained as a mark of renewed confidence in the neighbourhood. The below average price levels since 1977 are a realistic reflection of the modest nature of Riverdale's housing stock. Since 1987, however, the City's land assessment department has noted that lot values have increased sharply in Riverdale, accompanying the recent spurt of redevelopment noted in section 5.3.3.

Of the four study areas, Oliver appears to have experienced the most dramatic change in house sales prices over the course of the study period. Prices rose from a level near or below the Edmonton average in the period 1971-1977 to a peak well above the citywide average in 1983, before falling sharply in 1984. The relatively high prices of the late 1970s and early 1980s may be explained by the intense redevelopment pressure that was experienced in that boom period. In addition, as noted in section 5.3.1, houses were then being purchased by firms for conversion to business premises. The fall in average sale price in 1984 again reflects the economic recession. In contrast, house sales prices in Garneau corresponded closely to the Edmonton average throughout the period 1971 to 1986.

5.6.3 Implications for Research Question Four

The data on frequency and value of house sales do not indicate that speculation occurred after the neighbourhood plans came into effect. If anything, the data on frequency of sales for Groat Estate, Oliver, and Garneau indicate that sales activity was slightly reduced, perhaps reflecting the effects of the recession. Even in Riverdale, the neighbourhood with the clearest signs of physical and social upgrading, the level of sales activity was relatively stable.

Sales prices increased at an above-average rate in Groat Estate in the late 1970s and continued to rise until 1981, but that was probably due to a combination of factors, including the attractiveness of the housing stock in the area, and its proximity to a high-status neighbourhood (Old Glenora) and downtown Edmonton. These advantages appear to have been reinforced in the period after the neighbourhood plan was introduced, so it is reasonable to assume that potential homeowners came to look more favourably on Groat Estate as a place to live. That resulted in some inflation in house prices, but it would not be accurate to call this speculation, since the values were not disproportionately high for a district that combined an attractive housing stock and a convenient location with the protection of a neighbourhood plan.

In Riverdale, the adoption of the neighbourhood plan appears to have caused a sharp increase in house sales prices, but under exceptional circumstances. The plan represented such a fundamental change in policy that it was bound to result in an increase in property values. Even so, the inflation in sales prices was extremely brief, dispelling the idea that speculation may have occurred. Generally, sales prices in Riverdale reflected the modest nature of the housing stock. Since 1988, however, property values have risen sharply again, following an increased demand for building lots.

In Oliver, sales values rose above the average for Edmonton during the boom years of the late 1970s. This was most likely due to the proximity of the area to the CBD and the demand for houses which could be used as business premises, as well as lots upon which offices and apartments could be built. After the Oliver plan came into force in 1981, sale values were higher than the Edmonton average, but not disproportionately so given the location of the area. Moreover, apart from one unusually high average in 1983, the trend was generally comparable to that for Edmonton, suggesting that speculation did not occur.

In Garneau, the sales trend was almost identical to that of Edmonton, suggesting that speculation did not increase in the period after the neighbourhood plan came into force.

5.7 Synthesis

From the analyses in section 5.3, it can confidently be concluded that the numbers of low-density, family housing units were maintained in all four of the study neighbourhoods in the periods after their respective plans came into effect. In fact, there were modest gains in Groat Estate, Riverdale and Garneau, the consequence of a combination of infill redevelopment and the reconversion of houses to single-family use. Moreover, personal observation reveals that infill construction has continued since 1986, when the study period ended. In Oliver, by contrast, few new houses were built in the post-plan period, but even there reconversion was a well established phenomenon and demolitions were limited to sites where redevelopment was sanctioned under the neighbourhood plan.

In addition, it is clear from the evidence presented in section 5.4 that the overall condition of the housing stock improved in the post-plan periods. This is indicated by the fact that a substantial proportion of the houses underwent renovation and that the rate of renovation activity increased at least slightly in all four neighbourhoods. It can also be inferred that the most frequent renovations were related to the need to bring deteriorated and outmoded houses up to standard, a result that is very much in keeping with the spirit of the plans. These were general tendencies, however, and they did not apply with equal force across all of the study neighbourhoods. Thus, in Riverdale, where the original houses were particularly small and poorly constructed, the improvement in housing conditions owed more to infill redevelopment than it did to renovations of the surviving stock - although renovation activity definitely increased. On the other hand, in Oliver, where initial housing quality was much higher, there was the least evidence of renovation in absolute terms. Yet an unusually high proportion of Oliver's renovated houses had experienced large-scale renovation, perhaps in association with their reconversion to family use. It was in Groat Estate and Garneau, however, that renovations had their greatest effect on overall housing conditions - and above all in Groat Estate, where the rate and scale of renovation activity were well above average for Edmonton's inner city districts, including the other study neighbourhoods. Groat Estate also offered the clearest indications of renovations being carried out for amenity and lifestyle reasons, suggesting that physical upgrading there was at least partly associated with a trend to social upgrading.

That possibility was addressed in section 5.5, where it was concluded that social upgrading actually occurred to varying degrees in all four study neighbourhoods. Thus, whereas the plans were presumed to be for the benefit of incumbent populations, the demographic and social analyses indicate that the original residents were giving way to newcomers of higher status. This also implies that the neighbourhoods were becoming more exclusive in their social composition, contrary to the spirit of the plans, although this tendency was offset to some degree by evidence that they were providing a more stable and attractive environment for family households. In the cases of Groat Estate and Garneau, these trends are interpreted as expressions of renewed confidence in neighbourhoods that were once on the verge of redevelopment, but which were able to retain and strengthen their low-density residential character. The process cannot properly be described as gentrification, since it did not involve the displacement of working class populations, but it nevertheless explains the vigour with which physical improvements were pursued, especially in Groat Estate. In contrast, the pattern of change in Riverdale was characterized by a shift to an increasingly middle-class population, moving in to fill the gap left by the working class families that had been displaced under the river valley policy in the pre-plan period. Of the four study areas, Riverdale is the only one that exhibits clear signs of gentrification in both social and physical terms. If the process continues, as it seems bound to do, Riverdale too is likely to become an exclusively middle-class neighbourhood.

Finally, it is concluded that all four neighbourhoods showed the effects of revitalization in the periods after their plans came into force. The forms of revitalization were complex, and they varied from neighbourhood to neighbourhood, but the general pattern is unmistakeable. The evidence is clearest for Riverdale, since a radical change of planning policy was required there, and revitalization was actually initiated by the neighbourhood plan. In Groat Estate and Garneau, on the other hand, revitalization seems to have started before the plans were prepared - indeed, was a large part of the incentive to have plans in place. But the revitalization process clearly continued in both neighbourhoods, and in the case of Groat Estate, at least, almost certainly intensified. Even in Oliver, always the most problematic of the study areas from a neighbourhood planning standpoint, there was renewed interest in its family residential qualities once the remaining houses were brought under the protection of the plan.

6. The Effectiveness of the Plans

6.1 Introduction

Chapter 6 is concerned with the effectiveness of the plans in addressing various development issues. The material represents the use of shadow controls, as described in section 3.3., to supplement the "hard" data presented in chapter 5. In section 6.2, the extent to which the plans were effective in preventing development that conflicted with their spirit and intent is addressed. Development applications that conflict with the aims of communities and their neighbourhood plans can be expected to spark protests from neighbourhood organizations. Such cases tend to be reported in local newspapers, as well as in neighbourhood newsletters. It was decided to use these kinds of documentary sources, complemented by interviews with representatives of the neighbourhood organizations, to try to determine how effective the plans have been in preventing unwanted development.

Ultimately, any analysis of the effectiveness of neighbourhood plans must include the views of those most directly affected by the plans - that is, the residents. The plans prescribe the kinds of land uses that are permitted in specific portions of each area and thereby help to create the residents' living environment. Section 6.3 is therefore an analysis of responses to a series of questions in which the survey respondents were asked to evaluate the effectiveness of the plans in relation to a number of neighbourhood development issues. The questions are dealt with in the order they appeared on the questionnaire.

Together, the documentary information, the results of interviews with neighbourhood organization representatives, and the questionnaire responses are used to answer the fifth research question: **Is there evidence to suggest that unwanted development has been prevented, and that issues of concern to the residents have been addressed since the plans came into effect?**

6.2 The Prevention of Unwanted Development

6.2.1 Groat Estate

Only two major development controversies have erupted in Groat Estate since 1977. One involved the continuation of a dispute over the development of a site located on the north-west corner of the intersection at 124th Street and 102nd Avenue (see Figure 4). In 1974 and 1975, Coronet Realty Limited attempted to obtain permission to construct an eleven-storey office block on the site, but the residents were able to convince the city council to reject that proposal. The site was then purchased by the Triple Five Corporation which, in 1981, succeeded in having the land use bylaw amended to permit the construction of a seven-storey office building, despite community protests to the Edmonton Development Appeal Board and the Alberta Court of Appeal. They were concerned that the building would cause a severe shadow problem and increased traffic on residential streets.

The second controversial development involved an enclave of the neighbourhood south of 102nd Avenue and west of 124th Street (see Figure 4), where a retailing complex known as High Street Mall has been constructed. The first phase of the development was completed in 1985. Two more phases followed in 1986 and 1987 respectively. The mall houses specialty shops and boutiques, with an emphasis on prestige and quality. The development was approved by the city council, but was not supported by the planning department because it conflicted with the spirit and intent of the Groat Estate plan (Edmonton Journal, 17 October, 1987; Alberta Report, 28 March 1988). Moreover, the development conflicted with the land use district applied to the site in 1977, which called for the retention of single family housing. To meet the developer's wishes, however, the site was reclassified to a direct control district, permitting the council to rule directly on its use. Adjacent lots were also rezoned to direct control in June and August 1988 and in January 1990. Shortly afterwards three houses were converted for use as offices, and one for use as a restaurant.

These cases demonstrate one of the constant fears of the residents of Groat Estate; that is, erosion of the housing stock due to continued expansion of the 124th Street strip. This fear is compounded by the fact that city council has shown its willingness to approve non-conforming developments over the opposition of its own planning department, demonstrating how fragile a plan can be in the absence of political support and without the legal force of a bylaw. These cases also demonstrate that developers can persuade policy makers to change their plans even when the pressure for redevelopment is not heavy, and despite the efforts of local residents. If redevelopment pressures increase in the future, it is probable that politicians will be even less likely to stand in the way of development.

Aside from these two cases, there has been little controversy over unwanted development in Groat Estate since the introduction of its community plan. The area continues to be, predominantly, a family oriented neighbourhood.

6.2.2 Riverdale

Since 1977, when the Riverdale plan was introduced, there has been little controversy over unwanted development. One conflict, however, lasted for almost ten years, although it did not concern new development. Instead, it resulted from the City of Edmonton's practice of purchasing properties as part of its river valley parks policy. Upon Riverdale's exemption from that policy, and following the approval of its community plan, it was widely expected that the purchases would stop. In fact, however, the City continued to buy properties, with the aim of trading them for houses in other neighbourhoods that were still included in the river valley policy. It was hoped that residents in those areas would accept relocation to Riverdale. Some of the more dilapidated houses were demolished as well, and the residents, still suspicious of city council and the planning department, argued that the practice was destroying the neighbourhood. They urged that vacant houses should be renovated and rented, or sold to families who could then renovate them, but that did not happen until until 1985, when the river valley policy was finally abandoned. In that year, twenty lots were advertised for sale, three with houses standing on them, the remainder vacant. In addition, tenants in other city-owned houses were given the first option to purchase them, so ending the dispute.

A small number of residents expressed reservations about the provision made for co-operative and public housing in the Riverdale plan, but this kind of development has so far proceeded without conflict. The neighbourhood planning committee has also kept a careful watch for applications to build apartments, or larger commercial complexes, but has not been faced with any serious proposals yet. There is definite potential for conflict, however, centering on the future development of the J.B. Little brickyard land. Early in 1990 the land was put up for sale, leading to speculation among residents that applications to develop the site would soon follow. Some members of the community are determined that future development should be limited to detached single-family housing (Edmonton Journal, 29 March, 1990), but others will accept higher density development, such as row-housing, stacked town-housing and the like.

6.2.3 Oliver

By 1981, when the Oliver plan was approved, single-family housing had largely been removed and replaced by walk-up and high-rise apartments, offices and shops. Since then, there has been little conflict between development interests and supporters of family housing. A small number of development applications has been refused, however, either because they would have resulted in the location of incompatible commercial land uses in the remaining residential portions of the area, or because the proposed building would have dwarfed surrounding houses. This is further confirmation of the conclusion that intrusions upon the surviving low-density housing stock have been prevented since the plan came into effect (see chapter 5).

The main potential for conflict over unwanted development exists among residents in the various types of housing permitted under the plan. One such case is centered around a proposal put forward by a cooperative housing organization known as Communitas, to build stacked townhouses on lots currently occupied by four older houses used as rental properties. The residents who object to the Communitas proposal live in recently built row-houses and may be relative newcomers to the area. They argue that the location is unsuitable for children and that the houses are of historical and architectural interest and should therefore be retained. The project has been delayed, although it conforms to the plan objective of providing housing for a variety of social groups in a range of housing types. Generally, however, it appears that the reduced pressure for redevelopment that accompanied the economic recession of the early 1980s has so far limited the opportunity for conflict over unwanted development in Oliver.

6.2.4 Garneau

In Garneau, too, there appears to have been little controversy over development in the period since the Garneau area redevelopment plan was approved in 1982. The planning committee of the Garneau Community League established itself as a watchdog over development proposals for the neighbourhood, and the buildings constructed there have, in the main, received the committee's approval. This indicates that unwanted development has been prevented since the plan came into effect. As in Oliver, however, neither the committee nor the plan has so far had to cope with the kinds of demands that created such strong redevelopment pressure in the 1960s and 1970s.

6.3 Respondent Perceptions of the Effectiveness of the Plans

In question 1 of the questionnaire survey, the respondents were asked how much they knew about their neighbourhood plans. The results suggest that the best informed respondents were in Groat Estate, where 17% (11) reported that they had read the plan document, knew its contents well, or had attended public meetings when the plan was being prepared (Figure 58). In contrast, the respondents in each of the other three neighbourhoods were much less well informed. The percentage reporting that they did not previously know of the existence of a plan ranged from 19% (12) in Riverdale to 34% (52) in Garneau. Overall, however, the majority of respondents in all of the study areas tend to know something about neighbourhood planning, if not the details of the plans, which is consistent with accepted ideas about citizen participation in planning. That is, it is to be expected that only a minority of residents will be highly informed about, and involved in, planning issues. In addition, it is possible that some of the residents who were active when the plans were being prepared have since moved away from the neighbourhoods.

In question 2, the respondents were asked to rate how effective or ineffective their neighbourhood plans have been in improving the condition of the "streetscape", which is defined here to include the roads, trees, sidewalks and grass areas. While the neighbourhood plans are not directly concerned with these qualities, the kinds of development they permit may directly affect the appearance of the streetscape. For example, rezoning an area of single-family residential use to permit higher density development is likely to lead to dramatic changes as houses, trees and gardens are removed and apartments are

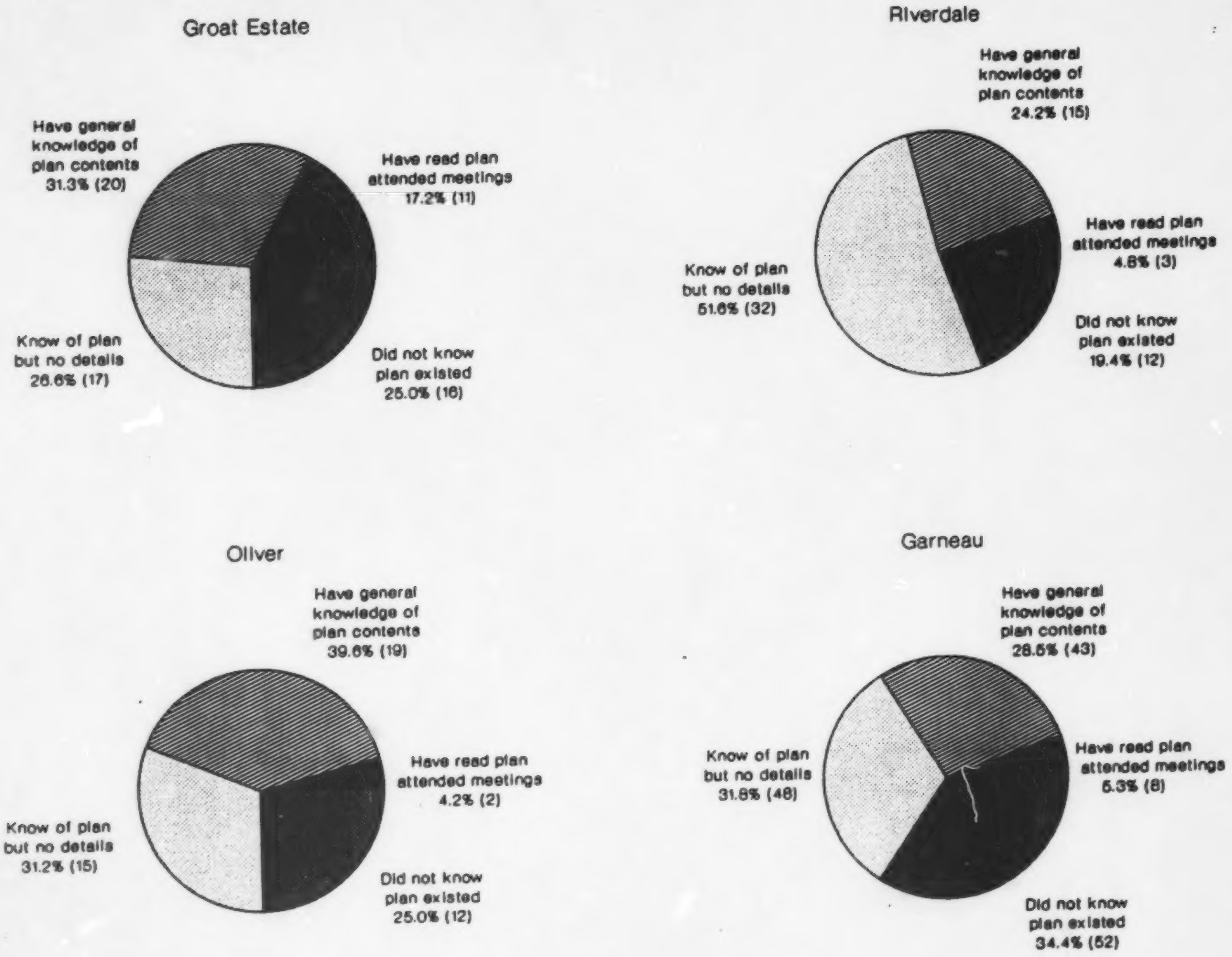


Figure 58. The Survey Respondents' Knowledge About Their Respective Neighbourhood Plans

constructed. The survey results (Figure 59) indicate that the majority of respondents regarded the plans as being either very effective or somewhat effective in helping to improve the streetscapes in their respective neighbourhoods.

Next, in question 3, the respondents were asked how effective or ineffective the plans have been in helping to improve the condition of houses in their respective neighbourhoods. The results indicate that, with the exception of Oliver, the majority of respondents believe that the plans have been moderately to very effective (Figure 60). In Oliver, however, 56% (27) of the respondents considered that their neighbourhood plan was, at best, only partially effective in improving house conditions. This result is consistent with the inferior position of detached family housing in the neighbourhood.

Traffic is another important neighbourhood issue that can be directly affected by land use changes, whether planned or unplanned. The spread of shops and offices, for example, from a commercial strip into residential streets, may cause increased traffic flows, noise and air pollution, and parking problems. In question 4, therefore, the respondents were asked how effective the plans have been in reducing traffic problems. The Groat Estate respondents had mixed views on this question. Almost 52% (33) stated that the Groat Estate plan was somewhat effective to very effective, but more than 40% of them regarded the plan as, at best, only partially effective (Figure 61). The mixed response is most likely a function of where each respondent lived. Those who lived adjacent to the busiest streets, such as 102nd Avenue and 124th Street, are more likely to view the plan as ineffective than those living on the quieter streets. The same is true in Garneau where more than half of the

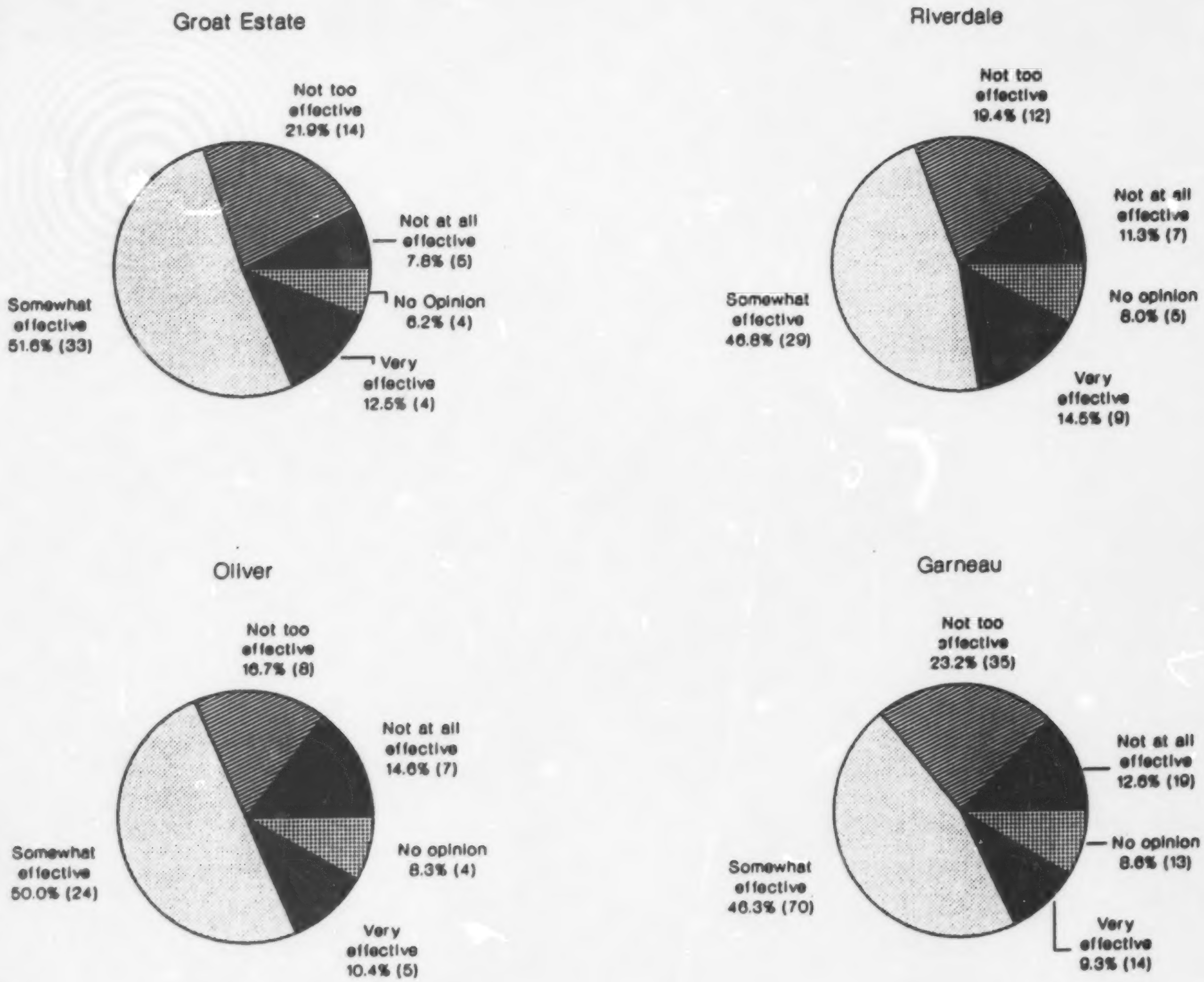


Figure 59. Respondent Opinions About the Effectiveness of the Plans in Improving the Streetscapes

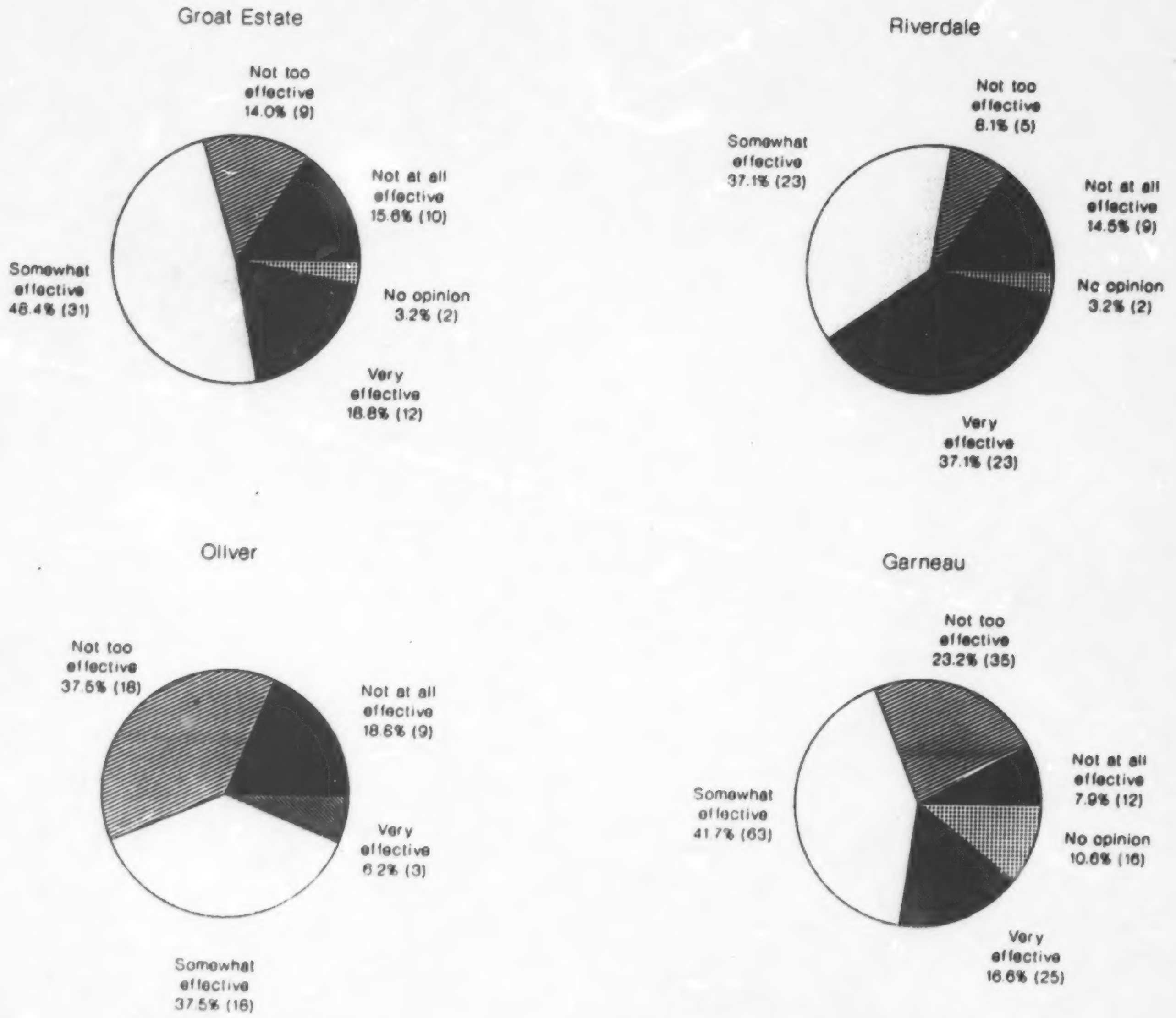


Figure 50. Respondent Opinions About the Effectiveness of the Plans in Encouraging Improvement in House Condition

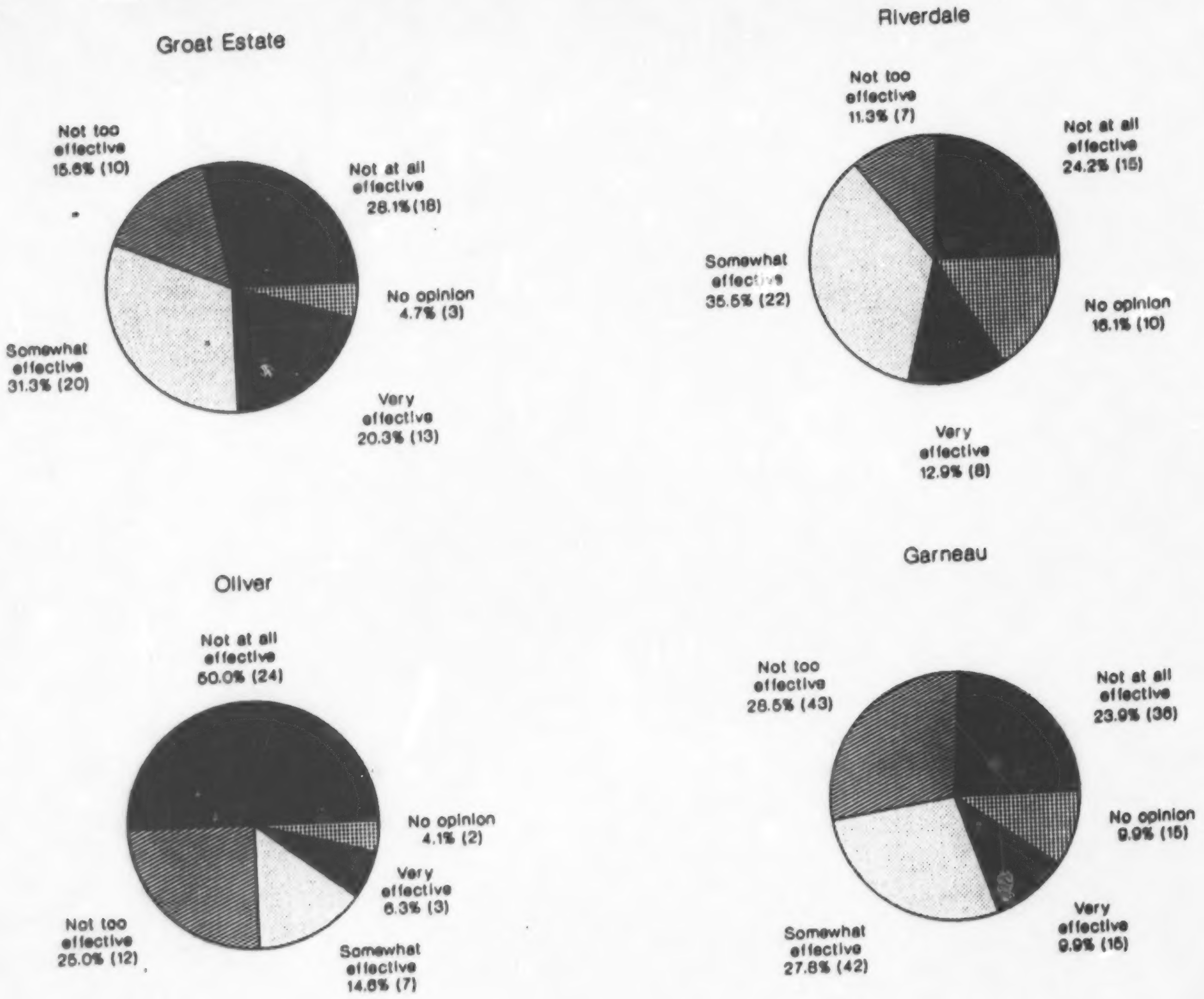


Figure 61. Respondent Opinions About the Effectiveness of the Plans in Reducing Traffic Problems

respondents regarded the neighbourhood plan as, at best, not too effective. Residents living adjacent to the University of Alberta and the Walter C. McKenzie Health Sciences Center are faced with busy streets and limited parking, particularly during the university term. Local parking restrictions have been introduced, to try to reduce the problem, and some intersections have been made narrower to reduce traffic speed and to discourage drivers from using residential streets as "short-cuts". In Oliver, half of the respondents stated that the neighbourhood plan was not at all effective in reducing traffic problems, a result that is not surprising since the area is divided by the major business strip of Jasper Avenue and is traversed by other major access routes into downtown Edmonton. In addition, the conversion of residences into business premises serves to attract more traffic into the neighbourhood. In contrast, in Riverdale, almost half of the respondents stated that the neighbourhood plan was at least somewhat effective.

As part of the attempt to protect and enhance the family residential character of the neighbourhoods, each of the plans under study aimed to prevent erosion of the detached housing stock. This was addressed in question 5, where the respondents were asked how effective or ineffective the plans have been in preventing the construction of apartment buildings at the expense of houses. In the first two neighbourhoods, Groat Estate and Riverdale, the majority of respondents stated that their plans had been very effective (Figure 62). These results reflect the existing physical character of each area, whereas the responses from Garneau and Oliver were less enthusiastic. Even in those cases, however, the majority of respondents considered their

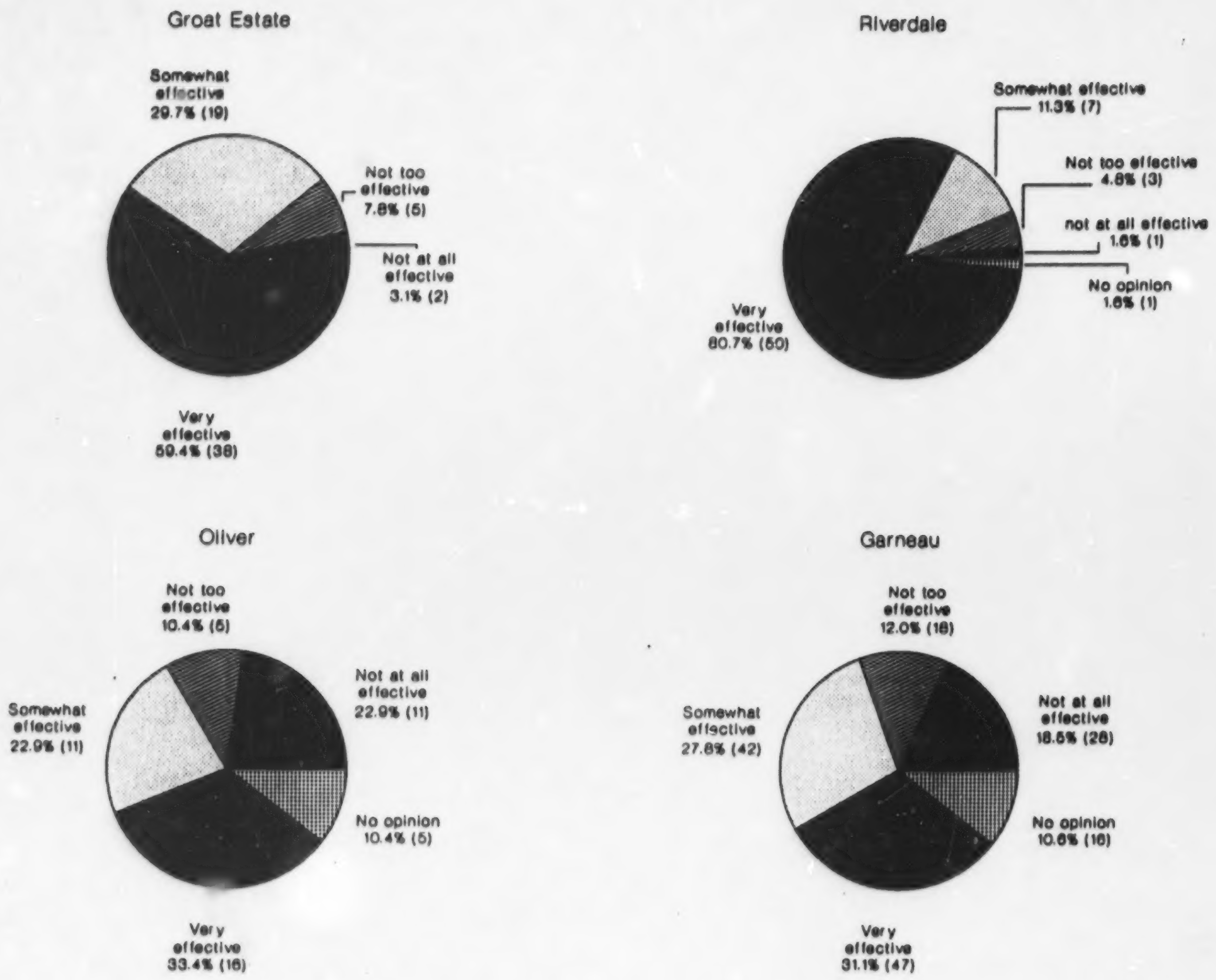


Figure 62. Respondent Opinions About the Effectiveness of the Plans in Preventing Erosion of the Family Housing Stock

neighbourhood plans to have been at least somewhat effective in preventing apartment construction.

Another way in which the family housing stock may be eroded is by the conversion of residences into various kinds of business premises. This issue was addressed in question 6, and the results complement the data presented in chapter 5. There it was established that the conversion of houses for business purposes has been confined to Oliver. The survey responses reflect this pattern, with more than half (25) of the Oliver respondents reporting that their neighbourhood plan has been ineffective or not too effective in preventing business conversions (Figure 63). This question, however, was a misleading one in the Oliver case, since conversions are permitted under the Oliver plan. In contrast, three-quarters (48) of the Groat Estate respondents stated that their plan was somewhat effective to very effective in preventing business conversions. In Garneau, two-thirds (103) of the respondents reported that their plan was at least somewhat effective, while three-quarters (46) of the Riverdale respondents regarded the neighbourhood plan as very effective. That last response can probably be attributed to Riverdale's relatively isolated location, and the fact that businesses have shown little interest in locating there.

To try to obtain an overview of the respondents' opinions about development issues, a list of issues that were to be addressed by the neighbourhood plans was assembled. The respondents were given the opportunity, in question 7, to indicate the extent to which they thought they remained problematic. Specifically, they were asked to rate six development issues on a scale ranging from 1 to 5, with 1 meaning the

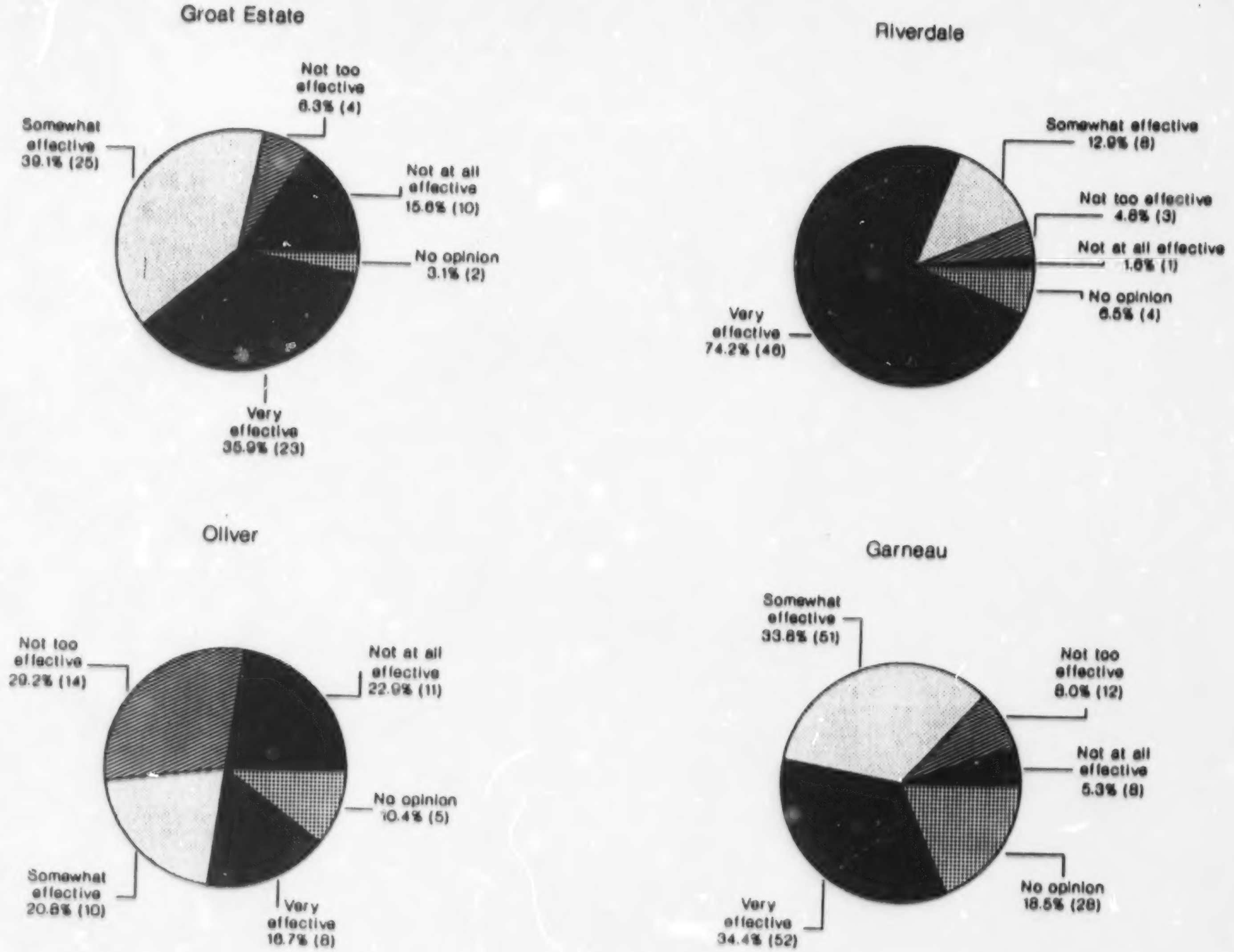


Figure 63. Respondent Opinions About the Effectiveness of the Plans in Preventing the Conversion of Houses into Business Premises

issue was not a problem and 5 meaning that is was a severe problem. The mean scores of the responses were then calculated and ranked.

In Groat Estate, Garneau and Oliver, traffic was listed as the main problem (Table 8). The mean scores of 3.5 in the case of Groat Estate, and 3.7 in both Garneau and Oliver, indicate that it was perceived as a reasonably bad problem. The deterioration of houses was ranked equal first in Groat Estate, with a mean score of 3.5, which may be a reflection of the comparatively large stock of older houses that require renovation. The replacement of houses with apartments and business premises was also seen as a fairly serious problem in Groat Estate (mean score 2.8), though it was thought to be even more serious in Garneau, where it was the second ranked problem (mean score 3.5). The difference between the two areas is clear. Groat Estate remains virtually untouched by apartment redevelopment, while parts of Garneau have been heavily redeveloped; in addition, a limited amount of apartment redevelopment has continued since the Garneau plan came into force. In Groat Estate, on the other hand, the conversion of houses into business premises was a more highly ranked problem (third equal with the replacement of houses) than in the other neighbourhoods. This response probably reflects the constant and growing pressure for expansion of the 124th Street commercial strip. Even so, the mean score of 2.8 does not indicate that it is a serious problem. Moreover, the overall mean score for all of the development issues is less than 3.0 in Groat Estate, indicating that the residents do not perceive the neighbourhood to be facing severe problems. Similarly, in Garneau, the overall mean is 3.2, indicating that the respondents perceive problems there to be slightly more serious but certainly not severe.

Issues or problems	Groat Estate MS	Groat Estate R	Garneau MS	Garneau R	Oliver MS	Oliver R	Riverdale MS	Riverdale R
Replacement of houses with other buildings	2.8	3=	3.5	2	3.4	3	2.2	5
Traffic problems	3.5	1=	3.7	1	3.7	1	2.3	4
Inappropriate style and scale of new buildings	2.4	6	2.9	5	2.5	6	2.8	1
Conversion of houses to offices, shops, etc.	2.8	3=	2.7	6	2.7	5	1.9	6
Deteriorating condition of houses	3.5	1=	3.4	3	3.5	2	2.5	3
Deterioration of streetscape	2.7	5	3.0	4	3.1	4	2.6	2
Overall mean	2.9		3.2		3.1		2.4	

When interpreting mean scores, note:

1 means the issue is not a problem today
5 means the issue is a severe problem today

MS = mean score R = rank

Table 8. Respondent Perceptions of Development Issues in the Study Areas

In Riverdale, the respondents regarded the construction of houses in inappropriate styles and scales as the most significant problem, though the mean score of 2.8 suggests that it was not a serious concern. On the one hand, this may reflect a reaction to the construction of modern duplexes and large detached houses, of a style similar to those found in most suburbs; on the other, it may reflect concerns about the construction of cooperative or low-income housing. The second ranked problem in Riverdale is a general deterioration in sidewalks, streets, and streetlights. Again, however, the mean score of 2.6 indicates it was little more than slight in severity. In fact, the Riverdale respondents considered their neighbourhood to be comparatively free of development problems, as demonstrated by the overall mean score of 2.4. This suggests that development issues have been effectively addressed since the Riverdale plan came into effect.

In Oliver, the deteriorating condition of houses was rated between a definite problem and quite a bad problem (mean score 3.5). This may relate to the fact that the majority of the remaining houses were rental properties, not all of which were well maintained. The issue of converting houses into business premises was not perceived to be a great problem, perhaps because many of the new businesses offer consumer services to the neighbourhood residents. In addition, the business owners have tended to renovate the houses, improving not only the structures themselves but also the quality of the streetscape. The mean score for all the development issues combined is 3.1, indicating that problems are slightly more severe than in Groat Estate or Riverdale, but, nevertheless, are not particularly serious. In all four neighbourhoods, in fact, the mean scores suggest that the development issues listed in the questionnaire were not perceived to be severe problems.

Finally, since the end purpose of any neighbourhood plan is to improve the residents' living environments, the respondents were asked, in question 8, to rate how effective their particular plans have been in making the areas better places to live. The results, like those in table 12, show that the Riverdale respondents had a more positive attitude than those in any of the other three study areas (Figure 64). Almost half of them stated that their neighbourhood plan was very effective, which is a clear reflection of the special circumstances that prevailed there. The approval of the Riverdale plan meant, in effect, that the neighbourhood was saved from demolition, and the respondents were well aware of that fact.

The second most favourable evaluation came from Groat Estate, where two-thirds of the respondents reported that their area plan was somewhat or very effective. It has been particularly effective to date in preventing the spread of apartment redevelopment and commercial land uses from the adjoining neighbourhood of Oliver and the 124th Street commercial strip. In the main, development has been confined to some infilling, resulting in little disruption of the character of the area.

In contrast to Groat Estate and Riverdale, much smaller percentages of respondents in Garneau and Oliver regarded their plans as very effective in making the areas better places to live. Approximately one-third of the respondents in each case reported their plans to be ineffective or not too effective, at best. Yet even in these neighbourhoods, the majority of respondents regarded the plans as having

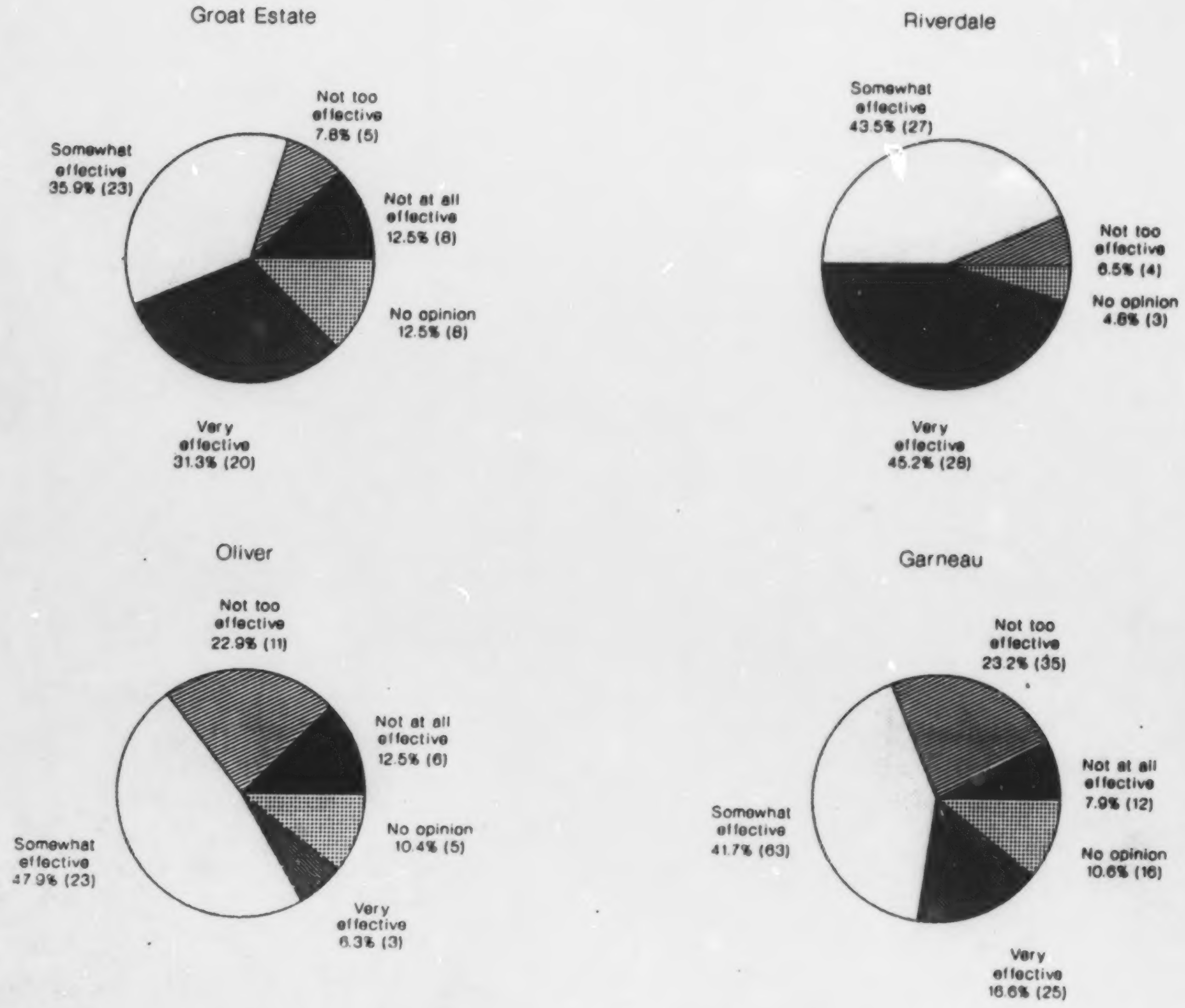


Figure 64. Respondent Opinions About the Effectiveness of the Plans in Making the Neighbourhoods Better Places to Live

a positive effect; that is, they rated them as very effective or somewhat effective.

6.4 Implications For Research Question Five

Little or no controversial development has occurred in the study areas since their plans were approved. The main exception was Groat Estate, where one controversial development, the High Street Mall, was permitted over the objections of the city planning department. It demonstrates to the residents the continued danger of the expansion of the 124th Street commercial strip into the neighbourhood and represents the one major failure of the Groat Estate plan to prevent development that conflicts with its original objectives. Otherwise, unwanted development was effectively prevented in the period after the Groat Estate plan came into effect. Moreover, the survey respondents gave a favourable evaluation to the effectiveness of the plan, expressing only minimal concern about continuing development issues. This indicates that issues of concern to them were quite effectively addressed in the post-plan period.

Riverdale has not faced any controversial development proposals since its plan was introduced and it is concluded that here, too, unwanted development has been effectively prevented. The future use of the J.B. Little brickyard land, however, may well prove to be source of controversy in the future. The land is being sold and will likely be used for residential development. The residents are divided over the form that future development should take, and it is not clear whether the spirit of the original plan will be rejected or not. Serious conflict could erupt between those who wish to see large, single-family houses built and those who prefer a variety of housing types. The latter would be more in accord with the intent of the plan. Here too, however, the survey respondents were generally favourable in their evaluation of the effectiveness of the plan in addressing issues of concern to them.

There has been little controversy over new construction in Oliver. The main exception has been a dispute over cooperative housing, a dispute to which the plan contributed as an unintended side effect. Although one of the objectives of the Oliver Plan is to provide a variety of housing for a mix of social groups, some residents view cooperative housing as undesirable. Ironically, as appears to be happening in Riverdale as well, the conflict has erupted over a land use that is consistent with the plan objectives, demonstrating that plan objectives agreed to by past residents may be unwanted by newcomers. There has also been some protest against the removal of mature trees to make way for the construction of a heritage walkway through part of the area, although the protests came after the trees had already been cut down. This case demonstrates how different plans may contradict one another. Improvement of the streetscape was one of the general aims of the Oliver plan, one interpreted by the residents to include the preservation of existing trees. The construction of the heritage walkway is part of a policy of improving the downtown streetscape, but it led to the removal of one of the valued components of the streetscape in Oliver.

Other than these two cases there has been no controversy over unwanted development in Oliver. The survey respondents' evaluation of the plan was moderately favourable, except when addressing traffic problems, where the plan was strongly regarded as ineffective. In the main, therefore, issues of concern to the respondents were effectively addressed in the period after the plan came into force.

In Garneau, there have been few development applications since the plan was adopted. Those that have been approved have been acceptable to the Garneau Community League planning committee. They have also conformed with the spirit, and usually the letter, of the neighbourhood plan, indicating that unwanted development has been prevented. This may be due in part to the economic recession, yet the survey responses indicate that the Garneau plan is generally considered to have been effective in addressing neighbourhood development issues.

Overall, then, the responses to the evaluative questions in the survey indicated that the majority of respondents feel the neighbourhood plans have been moderately effective to very effective in addressing development issues in the respective neighbourhoods. Only the issue of traffic problems elicited a consistently negative response from the respondents, although less so in Riverdale. It should be remembered, however, that the plans are chiefly empowered to control land use by means of zoning and so can have only indirect effect on traffic problems. Moreover, traffic issues are not, in the main, the responsibility of the city planning department. It was therefore unfair to criticize the case study plans for failing to solve traffic problems. Finally, the majority of respondents indicated that the plans have been effective in making the neighbourhoods better places to live, confirming that they have had positive effects on the residential environment as far as the residents themselves are concerned.

7. Conclusions

7.1 Introduction

The central purpose of the research was to evaluate the effectiveness of neighbourhood plans in preventing the wholesale redevelopment of neighbourhoods, and promoting, instead, an alternative form of revitalization. This was to be based on the preservation and renovation of the existing housing stock and the promotion of a stable, family residential environment without displacing existing sections of the population, such as the elderly and low-income residents.

The development of land use conflict in the four study neighbourhoods, as well as the processes of community organization and plan preparation, were first outlined. Then, the City of Edmonton property tax assessment record and the Census of Canada, supplemented by a survey of residents, were used to construct profiles of land use change, renovation activity, social and demographic change, and housing market activity from 1971 to 1986. These data were used to determine empirically the effectiveness of the case study plans as measured against selected performance indicators. The research provided an opportunity to test the belief that participatory neighbourhood planning should lead to effective plans and policies at the neighbourhood scale.

An evaluation of the effectiveness of each of the case study plans is presented in section 7.2. That is followed by a critique of the goal achievement approach to ex-post evaluation in 7.3, and then by a discussion of the implications of the study for housing and planning policy in 7.4.

7.2 Evaluation of the Effectiveness of the Case Study Plans

To begin this section it is useful to repeat the research questions that were addressed in chapter 5 and chapter 6:

1. Has the family housing stock been maintained since the plans took effect?
2. Is there evidence to suggest that the condition of the family housing stock improved after the plans came into effect?
3. Is there evidence to suggest that the mix of social groups was increased, or that the incumbent population was displaced, after the plans came into effect?
4. Is there any evidence of speculation in the neighbourhood housing markets after the plans came into effect?
5. Is there any evidence to suggest that unwanted development has been prevented, and that issues of concern to the residents have been addressed since the plans came into effect?

The answers to these research questions provided the factual information about physical and social changes in the four study areas, from which conclusions about the effectiveness of the neighbourhood plans can be drawn. To take that final step, however, it is necessary to return to the three general questions that were presented in section 1.3 as being the essence of any ex-post evaluation. They set the framework for the interpretation of the research results:

1. Have the plans been successful in guiding development in desired directions? In other words, have the plans' objectives been met? With this question in mind, four objectives, common to all of the plans, were identified:

a. Maintain and, if possible, increase the amount of low-density family housing - low-density being defined as detached and semi-detached family dwellings.

b. Improve the condition of the neighbourhoods by residential rehabilitation and appropriate forms of infill redevelopment.

c. Prevent the displacement of the incumbent residents by providing for the construction of a range of housing types suitable for senior citizens and low-income families, among others.

d. Prevent commercial activities from encroaching upon the residential sectors of the neighbourhoods, whether through redevelopment or through structural conversions.

Evaluation of the extent to which the first, fourth and, in part, the second objectives were achieved is related to the indicators of land use change used to answer the first research question. The second objective is related mainly to the renovation indicators used to answer the second research question, and the third objective is related to the demographic and social indicators used to the answer the third research question. In addition, the survey respondents' judgements of the effectiveness of the plans, used to answer the fifth research question, provide an overall evaluation that supplements the findings of the objective data.

It is also important, throughout this interpretation, to remember the warning that was sounded in chapter 3 with respect to the problem of attribution that bedevils all ex-post evaluation research. The implication here is that it is not actually possible to prove that the neighbourhood plans had particular effects. From the analyses of the various indicators in chapter 5 it is established that the respective study areas took on certain characteristics in the post-plan periods, but it is not usually possible to demonstrate, with absolute confidence, that these characteristics were a result of the plans and nothing else. The most that can be done is to determine whether the characteristics correspond with a plan's intended consequences and so can be described as meeting its objectives. The degree to which that is due to the influence of a plan is then a matter of interpretation.

2. Have the plans been used to prevent changes that otherwise might have occurred? This is addressed by using part of the analysis related to the fifth research question.

3. Has implementation of the plans led to any unforeseen consequences that conflict with their spirit and intent? This is addressed by the indicators of social upgrading and speculation in the housing market, used in developing the answers to the third and fourth research questions respectively. Again, however, the problem of attribution must be allowed for, since even unforeseen events may not be a direct consequence of actions taken under the plan. In this case, therefore, attention is focused on unforeseen consequences that the plans failed to prevent.

The evaluation is organized on a neighbourhood basis, following the order in which the case studies were addressed throughout the report.

7.2.1 Groat Estate

In the main, the Groat Estate plan appears to have been effective in guiding change in the desired directions. At least, most of the changes that occurred after the plan came into effect conformed to the plan's objectives, even if it is not possible to demonstrate that the plan caused them to occur.

The first objective of maintaining the family housing stock has certainly been met. In fact, in the period after the plan came into force, the single-family housing stock was modestly expanded by a combination of infill redevelopment and reconversion of houses to single-family use. In particular, the absence of apartment redevelopment between 1976 and 1982, a period of sustained redevelopment pressure, strongly suggests that the plan was operating effectively then. The absence of comparable pressure since 1982 has been a fortuitous circumstance that has allowed Groat Estate to retain its residential character, and indeed to strengthen it.

The second objective has also been achieved, since Groat Estate experienced more renovation than is usual in Edmonton's inner city and the occurrence of renovation increased markedly in the post-plan period. A wide variety of renovations was carried out as part of the overall increase in renovation activity, although the bulk of them were small-scale and associated with upgrading houses to acceptable contemporary standards. At the same time, Groat Estate experienced a high degree of large-scale renovation by Edmonton standards, most often in the form of house expansion. The most frequently cited reason for renovating houses in Groat Estate was personal satisfaction in upgrading the style and look of the house, while the need for basic maintenance and repairs was second. Only in Groat Estate, among the four study areas, was this lifestyle motive the most popular one that was given, and it points to the conclusion that the neighbourhood's reputation was on the rise. Overall, then, the renovation evidence indicates a substantial improvement in housing quality, and that is supported by the elite character of the infill redevelopment as well.

The third objective, to prevent population displacement and provide housing for a range of age and income groups, is a difficult one to realize in practice. A land use plan cannot control the movements of people in and out of a neighbourhood. Moreover, this objective is liable to conflict with the first two. If the low-density housing stock is preserved and its condition improved through renovation, it is probable that a neighbourhood will begin to attract newcomers and that the first residents to be replaced will belong to groups such as senior citizens and low-income families. The trend to reconversion, and the construction of new single-family houses rather than apartment buildings, suggests that some renters were displaced in the post-plan period. Having said that, however, indicators of household type, housing tenure and age composition provide some evidence that Groat Estate may be moving towards a more balanced, and hence more stable, population. Erosion of family households was reduced, if not halted, according to the census data; in addition, the survey data indicate that families have moved into the neighbourhood. There is also evidence that the proportions of children and senior citizens have begun to increase. Moreover, the average family income, which was below that of the metropolitan area until 1981, rose in the following five years to a level substantially above the city-wide average. A turnover of population has occurred in which it is likely that renters were displaced by higher status owner-occupiers.

Finally, the objective of preventing commercial activities from encroaching on the neighbourhood has, in the main, been achieved. Very few houses have been converted into business premises, and purpose-built offices and shops have been mainly confined to the 124th Street commercial strip. The one major exception was the construction of the High Street Mall and the subsequent conversion of a small number of nearby residences into restaurants and offices. This demonstrates that the threat of encroachment by commercial land uses from the 124th Street strip remains a serious one.

In general, these conclusions were supported by the survey respondents' assessments of the effectiveness of the plan. The majority of them rated it as at least moderately effective with respect to the development issues related to the four objectives. Moreover, the great majority of the respondents regarded the plan as effective in helping to make the neighbourhood a better place to live.

The question of whether the plan has been used to prevent changes that otherwise might have occurred is difficult to answer. Apart from the case of the High Street Mall, there have been no controversial development proposals in the neighbourhood since the plan came into effect. On the other hand, the absence of any proposals to build apartments, particularly between 1977 and 1982, suggests that the plan sent a strong message to developers that apartment redevelopment would not be permitted. In this instance, therefore, it is reasonable to conclude that the plan effectively prevented unwanted development that might otherwise have occurred.

By contrast, to turn to the third of the evaluative questions, the plan was unable to prevent social upgrading. To the extent that the plan contributed to the enhancement of the residential environment in Groat Estate, it also helped to attract more high-status families into the neighbourhood. Certainly, as measured by occupational status and educational attainment, the social status of Groat Estate's population rose in the post-plan period. This trend was in conflict with the original spirit and intent of the plan, which aimed to enhance the residential environment for its existing residents; and although there is no firm evidence of population displacement, it can be inferred that the combination of reconversion, renovation and infill redevelopment led to an erosion of affordable rental housing and hence caused tenants to be dislodged. At the same time, social upgrading does not appear to have been at the cost of speculation in the neighbourhood housing market. Nor should the occurrence of social upgrading be interpreted as a failure of the plan, since land use plans are not capable of or designed for controlling social change. In the Groat Estate case there were other factors, notably its location between downtown Edmonton and the elite neighbourhood of Glenora, that rendered it particularly liable to upgrading, in both physical and social terms. The neighbourhood plan acted to reinforce this spontaneous tendency, by the protection it afforded to the standing stock of houses. By the same token, the upgrading trend explains much of the success that the first two planning objectives enjoyed.

7.2.2 Riverdale

Riverdale is the only one of the four study areas in which it can be concluded, with certainty, that achievement of the intended objectives was directly attributable to the plan. This is due to the unusual circumstances that prevailed in Riverdale in the pre- and post-plan periods. As long as it was under the threat of extinction, residents were unwilling to invest in improved housing, although the district had great attraction to them as a place to live. The removal of the policy threat and the approval of the Riverdale plan represented such a complete reversal that it sparked the rebirth of Riverdale as a residential environment.

Without doubt, the first planning objective was very successfully achieved in the Riverdale case. The contrast between the pre- and post-plan periods was stronger here than in any of the other three study areas. As long as it was governed by the river valley policy, Riverdale experienced physical decline marked by a deterioration of the housing stock and the subsequent demolition of houses deemed unfit for human habitation. The period after the plan came into force was characterized by an end to the demolitions and the expansion of the housing stock through infill redevelopment. Initially, this was in the form of duplexes and row-houses, but larger detached houses have become more common in recent years.

These developments had a direct bearing on the second objective as well, since infilling was the principal means by which the condition of the housing stock was improved. In Riverdale, the small size and low quality of the bulk of the housing stock means that property owners are more likely to build new houses than undertake expensive renovations. Nonetheless, the overall level of renovation activity increased after the plan came into effect, reflecting renewed confidence in the future of the neighbourhood. Most of the renovations were small-scale and were related to the need to bring the houses up to contemporary standards. The survey responses confirmed this, since the most frequently cited reason for renovating was the need for basic maintenance and repairs.

The small amount of large-scale renovation was usually in the form of external additions, which served to increase the useable living space of small bungalows and cottages.

As a further consequence of infill redevelopment, the population of Riverdale increased after the plan came into effect. There is also some indication that the neighbourhood was attracting more families with children. Population displacement, which certainly occurred in the pre-plan period, was no longer a factor, although it can be inferred that the sale of city-owned houses, most of which had been rented out, meant that tenants were displaced. Unfortunately, there was no direct evidence to confirm that possibility. On the other hand, some of the redevelopment took the form of cooperative housing which can be interpreted, at least in part, as evidence that an effort was being made to provide housing aimed at young families with limited resources. Overall, however, the neighbourhood underwent a process of social upgrading that can justifiably be called gentrification, since it involved the transformation of a working-class community into an increasingly middle-class one. Up to 1986, that had resulted in a fairly balanced population of lower-income families, senior citizens and recently arrived middle-class families. It is therefore concluded that the third objective has been achieved to this point, but there is no guarantee that that will continue to be the case. If social upgrading continues - and the plan is powerless to prevent it - the remaining working-class families will eventually be replaced.

Riverdale has been free from encroachment by commercial land uses in the post-plan period, but there was little demand for commercial development either before or after the plan came into effect. Nor, as yet, have there been any development applications that were at variance with the plan. The only foreseeable situation where that might happen is on the old brickyard site which, under the plan, should not be retained in commercial use. Present indications are that that objective will be met, although the precise form of redevelopment is still being discussed.

As in Groat Estate, the survey responses generally support the idea that the Riverdale plan was effective in achieving its objectives. The majority of the respondents regarded the plan as being very effective to moderately effective in addressing the issues that fell within the plan's scope.

An unforeseen consequence of the Riverdale plan has been the transformation of the neighbourhood's population from one that was predominantly working class to one that has become increasingly middle-class. The residents who were involved in the preparation of the plan did not intend that this should occur, as demonstrated by the objective of providing housing for a variety of demographic and social groups. Social upgrading was bound to happen, however, once it became clear that Riverdale would be revitalized as a residential neighbourhood under the plan. That trend has gained force in recent years as the other valley communities of Rossdale and Cloverdale, which remained under the river valley policy for several years longer than Riverdale, have come to be extensively redeveloped as well. This has meant that an important part of Edmonton's low-cost housing supply has been removed from the market.

Social upgrading may also have laid the foundations for future conflict within Riverdale, centring on use of the J.B. Little brickyard site. It is now up for sale and has great potential for residential redevelopment. Some residents would like to see a variety of housing types built, including row-houses, town-houses, special accommodation for low-income families and even small apartment buildings. Some would also permit commercial land uses such as neighbourhood convenience stores. Others, however, wish to see only detached, single-family houses on the site and have made clear their opposition to other kinds of development, particularly cooperative housing. Many of Riverdale's higher-status newcomers find unacceptable a form of housing that is permitted under the plan and which was acceptable to residents in the past. This may become a serious unanticipated local conflict in the future.

7.2.3 Oliver

It is difficult to come to firm conclusions about the effectiveness of the Oliver plan, since it came into force just as Edmonton entered a recession. Moreover, the bulk of the single-family houses had already been removed and replaced by walk-up and high-rise apartments, as well as office buildings and related businesses, by the time the Oliver plan was approved in 1981. In the period after it came into effect, however, the plan objectives have generally been met.

In the first place, the erosion of the family housing stock was greatly reduced between 1981 and 1986. There was also a small trend to reconversion, and recently there have been some some signs of infill redevelopment in the form of row-houses and town-houses. To this point, then, it is concluded that the first objective has been effectively achieved in Oliver, although the extent to which the plan rather than the general economic climate was responsible may only be known during another period of redevelopment pressure. At the same time, the existence of the plan should help ensure that a variety of types of lower-density housing will be built in future, contributing to a residential environment that will continue to provide a place for family households.

The second planning objective has been effectively achieved as well. Within the surviving stock of houses, the overall level of renovation activity increased in the period after the plan came into effect. A variety of mainly small-scale renovations have been carried out, with the most popular being interior and exterior refinishing and space expansions. According to the survey responses, the bulk of the renovation was related to the maintenance and upkeep of rental properties by absentee landlords, rather than renovation of family residences by owner-occupiers. Again, however, it is impossible to reach a firm conclusion about the extent to which the plan was responsible for the improvement in the condition of the remaining houses.

The third objective, to provide for a mix of housing types suitable for a variety of income levels and demographic groups, is difficult to assess, in part because it was not a realistic objective to begin with. The percentages of family households and senior citizens increased in the post-plan period, which suggests that the neighbourhood may have been starting to attract a more diverse population. The percentage of non-movers increased slightly as well, suggesting that displacement did not occur after the plan came into effect. If anything, displacement was a feature of the pre-plan period of apartment redevelopment. Once again, too, it is likely that reconversion, combined with the conversion of houses into business premises, probably resulted in the displacement of renters by reducing the amount of less expensive rental accomodation. Overall, however, Oliver continues to be characterized by a young adult population of increasingly high status living in non-family households and in rented accomodation. It is therefore concluded that the third objective was only partially achieved in Oliver.

With respect to the fourth objective, preventing commercial activities from encroaching upon the residential sectors of the neighbourhood, it is possible to come to a firmer conclusion. The conversion of residences into offices, shops and restaurants was well advanced by 1981 when the plan was approved. But the establishment of a "special character" commercial district under the Oliver plan has meant that such conversions have been effectively controlled and that further erosion of the family housing stock has been prevented. The Oliver plan can therefore be regarded as effective in achieving the fourth objective.

The general difficulty inherent in trying to determine the effectiveness of a plan in preventing development that otherwise might have occurred is compounded in the Oliver case by the fact that there were few development applications between 1981 and 1986. The land use controls applied to the neighbourhood under the plan are adequate to prevent unwanted development as long as there is the political will to enforce them, but to this point that will has not been tested.

The survey respondents' evaluations of the effectiveness of the Oliver plan were generally less positive than those from the other three neighbourhoods. At best, the plan was regarded as only moderately effective in addressing the development issues associated with the objectives. In addition, a much smaller percentage of the respondents regarded the plan as effective in making the neighbourhood a better place to live, although that can be regarded as an overly critical judgement. It is probably based on their perceptions of the environment that had been created before the Oliver plan took effect.

An unforeseen consequence of the plan has been the opposition by some residents to proposals to build cooperative housing on neighbouring sites, even though such development is consistent with the objective of providing for a range of housing types. As in Riverdale, this conflict reflects the difficulties that can arise when a plan attempts to provide housing for a mix of demographic and social groups within a single community. Residents in the high-status row-housing and town-housing complexes that are starting to be built in Oliver tend to associate cooperative housing with lower quality and regard it as a threat to their property values. There is no evidence, however, to suggest that anything unusual occurred in the neighbourhood housing market after the plan came into effect.

7.2.4 Garneau

In Garneau, too, it is difficult to make conclusive statements about the effectiveness of the plan in guiding development in the desired directions. As in Oliver, the evidence points to the plan objectives being achieved, but the extent to which that can be attributed to the plan remains open to interpretation.

The period after the approval of the plan was characterized by reconversion of houses to single-family use, as well as the beginning of a small amount of infill development, mainly in the form of stacked town-houses and Victorian style row-houses. It was a happy coincidence for the residents, however, that the recession began in 1982, the year the Garneau plan came into force. The single-family housing stock was no longer being reduced by apartment redevelopment, but there was no market demand either. A definitive test of the ability of the plan to protect the family housing stock against redevelopment will only be possible if renewed economic growth creates a demand for more apartments. There is no assurance that a period of redevelopment pressure comparable to the 1960s and 1970s will occur again in Edmonton, but that only confirms the need for constant plan monitoring. In the meantime, the creation of land use districts devoted to single-family housing in north Garneau and south of Whyte Avenue west of 109th Street, should ensure that apartment redevelopment will be less likely to erode the family housing stock in the future.

While the economic recession certainly reduced the pressure for redevelopment, the Garneau plan helped to create a climate in which the residents could be confident that it would be worthwhile to improve the standing stock of houses. As in the other three study areas, the survey responses indicate that the overall level of renovation activity increased in the period after the plan came into effect. As part of that pattern, a wide variety of renovations has been carried out, although most were related to upgrading defective houses and were small in scale. The percentage of houses that underwent large-scale renovation was about average for inner-city Edmonton, though their significance may have been greater than that suggests. Even a small number of large-scale renovations can have a large visual impact and go a long way towards creating a positive image for a neighbourhood. Extensive renovation of a few houses may encourage other owners to upgrade their houses as well, which in turn enhances the attractiveness of the area as a place to live. It is concluded, then, that the second objective has also been achieved in Garneau, but that the extent to which the plan was responsible remains unclear.

As in each of the other three study areas, the third objective, to prevent displacement and to provide for a range of housing types suitable for senior citizens and low-income families among others, is not one that can be easily realized by means of a neighbourhood plan. It does seem clear, however, that Garneau has become more attractive for family residential purposes. The census data indicate that the percentage of family households remained steady in the post-plan period, while the survey responses indicate that the bulk of the respondents represented family households that had lived in Garneau for five years or less, suggesting that the area was attracting more than young adults living as one-person households in rented apartments. There is also some evidence that the population was becoming more mixed in terms of age, with the proportion of senior citizens increasing slightly. That can be accounted for by the construction of some senior citizens' residences, in conformity with the plan. There is no evidence that displacement became a problem in the post-plan period, since the percentage of non-movers was unchanged. As in Oliver, displacement was more a feature of the period of apartment redevelopment than of the period after the plan came into effect. Like Oliver, however, reconversion and infilling trends represent a reduction of the affordable rental housing stock and probably led to the displacement of renters. In the main, it is high-status families that are being attracted to single-family houses in

Garneau. Young families with lower incomes are more likely to be found in the walk-up apartments in the neighbourhood.

The fourth objective, to prevent commercial activities from encroaching upon the residential portions of the neighbourhood, has been successfully achieved. Commercial activities have been confined to the 109th Street, 112th Street, and Whyte Avenue commercial strips, and very few houses have been converted into business premises.

As in Groat Estate and Riverdale, the survey respondents' assessments support these conclusions. The majority of them rated the plan as being at least moderately effective.

In Garneau, like Oliver, there were very few development applications in the period after the neighbourhood plan was approved. Hence, there was no controversy over unwanted development. Those development proposals that were put forward were evaluated by the residents' neighbourhood planning committee and were found to be satisfactory. Only during a future period of sustained redevelopment pressure, should that ever come about, will it be possible to test the effectiveness of the plan in preventing unwanted development.

As in all the other neighbourhoods, the main unintended consequence of the plan was to promote social upgrading. The neighbourhood has become more exclusive in the post-plan period, certainly with respect to the population of homeowners. The accompanying trend to reconversion led to a reduction of the affordable rental housing supply and probably to the displacement of tenants. Unlike Riverdale and Oliver, however, the in-migration of higher status newcomers has not resulted in any kind of conflict. There is no evidence, either, that social upgrading was accompanied by speculation in the housing market.

7.2.5 Summation

By and large, the characteristics of the four neighbourhoods changed in ways that corresponded with the plan objectives and therefore with the aims of the residents. There is no evidence that the intended outcomes of the plans were not achieved; in other words, there is no evidence that the plans failed. A qualification must be added, however, with respect to the residents' desire for a mixed population. That led to the unforeseen consequence of social upgrading which, in turn, is showing signs that it might cause future conflict in Riverdale and Oliver. It may well be that the objective of providing a variety of types of housing suitable for a range of social and demographic groups, however worthy in principle, was unrealistic. It is outside the power of area redevelopment plans to control social and demographic patterns, especially when zoning is the principal instrument of plan implementation, as it was in the study neighbourhoods. This means that the inability to prevent social upgrading should not be interpreted as a failure of the plans to perform effectively, but rather as a failure to set a realistic objective.

In light of the analyses presented in chapters 5 and 6 and in the absence, overall, of any indication of failure to achieve the desired objectives, it is concluded that the plans played a positive role in supporting development trends that are generally consistent with the aims of the residents. Moreover, the value of the plans goes beyond their influence on the development trends that have become manifest to this point. By establishing land use zones to regulate development, the plans send a firm message to developers that the residents will not tolerate any attempt to erode the quality of their residential environment in the future.

7.3 Critique of the Goal Attainment Approach to Ex-post Evaluation

In chapter 3, it was pointed out that there are three steps in the goal attainment approach to ex-post evaluation. The first step, identification of clearly defined, measureable objectives, is vital as the basis for empirically measuring the effectiveness of a plan (Rossi and Wright, 1979; Poister, 1983). In the present study, the objectives were sometimes not clearly stated and, at times, appeared to conflict with one another. The objective that caused most interpretive difficulty was that related to avoiding population displacement and providing housing for a range of social and demographic groups, since it was in conflict with the overall objective of enhancing the attractiveness of the residential environment. In addition, because area redevelopment plans are not empowered to control social patterns, evaluation of the effectiveness of the plan with respect to that objective was difficult to carry out. In the main, however, it was possible to identify a set of measurable objectives that were common to all of the study areas.

The second required step is the identification of a series of performance indicators, or indicators of goal achievement (Carley, 1980; Rossi and Freeman, 1989). Unfortunately, the criteria for the selection of such indicators are not easily met, and the data sources from which performance indicators can be extracted are limited. In the present study, the property-tax assessment records and the Census of Canada served well as sources of objective data, although it was not always possible to ensure that all of the assembled data would be directly applicable to the objectives being evaluated. The data on types of renovation, for example, did not directly measure how much the condition of the housing stock improved over time. There may be problems in data collection, as well. Extraction of the data is usually time-consuming and can be made more difficult by the manner in which the data are stored; in the case of Edmonton's assessment records, for example, much of the data was in the form of hand-written notes on cards stored in filing cabinets. The time needed to assemble data may therefore be prohibitive, particularly for planners who usually face severe time constraints.

The third step in the goal attainment approach to ex-post evaluation is the measurement of the extent to which plan objectives are achieved. This requires the use of time-series data in pre-plan and post-plan comparisons, sometimes referred to as the "reflexive control" approach (Carmon and Hill, 1989; Rossi and Freeman, 1989). The method worked well in Groat Estate and Riverdale, because the post-plan time periods were sufficiently long. In Oliver and Garneau, however, the post-plan periods were relatively short, limiting the interpretation of some of the data. This demonstrates a general problem in ex-post evaluation research; that is, it may take several years - under some development circumstances, many years - for a plan's effects to become manifest. In addition, in the present study, some data could not be assembled in a manner that would permit pre- and post-plan comparisons to be made. Some of the demographic and social indicators were available for every census year between 1971 and 1986, while others were not.

Moreover, the years for which the data were available were not divided equally between the pre- and post-plan periods. A still greater source of difficulty was the fact that the post-plan periods in both Oliver and Garneau coincided with the economic recession that began in 1982. That greatly affected the general climate of development in Edmonton and confounded the evaluation of the effectiveness of the Oliver and Garneau plans. It was a happy coincidence for the residents, of course, since the recession worked in favour of the objective of preserving family housing. But it is difficult to separate the influence of the plans from that of the recession. This illustrates another general problem of undertaking an ex-post evaluation - the research may not permit firm conclusions to be reached, due to extraneous confounding factors. In fact, the problem of attribution can never be completely overcome in ex-post evaluation research. Still, by limiting the evaluation of the case study plans to clearly defined objectives and evaluative indicators, the uncertainty about the effects of the plans was reduced.

The difficulties associated with obtaining appropriate data from objective sources, and the limitations of the data even when they were available, meant that the questionnaire survey took on added significance as a supplementary source of information. The questions about renovation activity, for example, were useful in providing information about the occurrence, types and scale of renovations, as well as the respondents' reasons for renovating, which the assessment record could not supply. In addition, question 7 helped in determining the effectiveness of the plans in achieving their objectives. In contrast, however, question 1 was not effective. It was hoped that the responses to the question would confirm the link between the neighbourhood plans and the respondents' evaluations of the neighbourhoods and their decision to renovate. Instead, the responses indicated that knowledge of plans is not important for the majority of respondents, although this does not mean that plans do not have effects; on the contrary, they contribute to a general climate of development that helps people decide to move into a neighbourhood or to renovate a house. Questions 2 and 4, addressing streetscapes and traffic problems respectively, were, in hindsight, unfair to the respondents since they dealt with issues that were not directly under the control of the plans. They should probably have been excluded from the questionnaire.

In the final analysis, any attempt to evaluate a plan's effectiveness comes down to interpretation and judgement. The goal attainment approach reduces the problem of attribution, but it does not remove it. In most cases it is impossible to state conclusively that a plan directly caused particular effects or to isolate the plan's outcomes. In the face of this difficulty, therefore, it is not surprising that ex-post evaluation continues to be given scant attention by practising planners. At the same time, even if ex-post plan evaluations are not wholly "scientific" in their nature, they advance the body of knowledge about the effectiveness of the planning system. Research into the procedural and practical requirements of setting up a monitoring and review process in neighbourhood planning, as well as research into ways of ensuring a constant and reliable source of data necessary for monitoring, would greatly assist researchers to carry out useful ex-post evaluation research.

7.4 Policy Implications of the Research

In this final section, some general implications of the Edmonton case studies for housing and planning policy are presented:

1. Despite the difficulty of measuring empirically the effectiveness of neighbourhood plans, it is concluded that neighbourhood planning is a worthwhile practice which should continue to be encouraged. Neighbourhoods differ in their physical and social characteristics, as well as the types and intensity of problems they face, so neighbourhood planning permits attention to be focused on those unique characteristics and problems that might otherwise be overlooked. The Edmonton research results also verified that neighbourhood plans can be effective instruments for protecting the family housing stock in the inner city, and for improving its physical condition.

2. Neighbourhood planning is effective only when there is strong and consistent local support for the plan in all its detail. That reinforces the importance of a participatory approach to neighbourhood planning, since residents are more likely to defend a plan they have had a role in preparing, and to which they are committed, than one imposed upon them by planners and politicians. In turn, the implication is that every effort should be made to encourage cooperation between residents and planners in neighbourhood planning. Well-developed community substructures such as community leagues, or the presence of well-educated, white-collar workers and professionals are important since they can form the foundation upon which organized resident involvement in neighbourhood planning can be built.

3. The Garneau and Oliver case studies demonstrated that even in neighbourhoods in which the redevelopment cycle is well advanced, and where home-owners have either moved away or become resigned to the changes that are occurring, the remaining residents are capable of organizing themselves and demanding the preparation of a neighbourhood plan that can have positive outcomes. Politicians and planners should therefore be prepared to initiate participatory planning exercises at all stages of neighbourhood development, even late in a redevelopment cycle.

4. It is expected that neighbourhood residents will occasionally find themselves in conflict after a plan has been approved. Circumstances change, households come and go, and different attitudes emerge about the forms of housing that are acceptable. The approval of a plan does not mark the end of the neighbourhood planning process. Nor should resident disputes be taken as evidence that a particular plan is failing, or that participatory planning cannot work. Rather, conflict should be regarded as a form of ex-post evaluation, revealing the need to address problems with the plan. It underscores the need for the effects of plans to be continuously monitored, and for their goals and policies to be regularly reviewed.

5. In Edmonton, as in other Canadian cities, there is increasing middle-class interest in inner-city neighbourhoods as places to live. The implication is that neighbourhood planning should be used to try to ensure that such areas, traditionally the location of affordable rental housing, should be prevented from becoming exclusive enclaves of wealthy

or high-status residents, resulting in the displacement of renters, including low-income families, the elderly and students. An unintended consequence of the Edmonton plans was to encourage in-migration by high-status newcomers, which did not protect the affordable housing supply but accelerated its erosion. It may therefore be necessary to find some mechanism other than the area redevelopment or community plan to ensure the adequate provision of affordable housing in inner-city areas. There is a close corollary as well, arising from the danger of approaching neighbourhood planning with unrealistic expectations. If plans are framed in the narrow terms of land use regulation, to be implemented through zoning, as the Edmonton plans were, it is unrealistic to expect them to be able to control processes of social change. It is therefore essential, in neighbourhood planning, to give careful consideration to implementation procedures and not to set objectives that are beyond a plan's power to meet.

6. In the mid to late 1970s, when the Edmonton case study plans were being prepared, they were poorly coordinated with the general plan for the city. The neighbourhood plans represent attempts to preserve low-density housing in the inner city, whereas the general plan prescribed that increased densities of development should be pursued there. This reflected a growth management approach to city-wide planning in Edmonton that was logical in the context of contemporary growth trends. Yet, at the same time, residents and planners alike were learning lessons about participatory neighbourhood planning and inner-city revitalization from the examples of cities like Toronto and Vancouver. The practice of neighbourhood planning was changing, as the case study plans illustrate.

The general plan fell out of touch with these changes and its coordinating role was in danger of being weakened. The larger implication, in such situations, is that if neighbourhood planning is to become dominated by small groups of residents, each with their own agendas, uncoordinated and inconsistent decisions may be taken. While participatory neighbourhood planning is worthwhile and important, it is also necessary to ensure that strong overall guidance is provided. The broad city-wide objectives of the general plan should be closely linked with neighbourhood plans, as the detailed manifestation of those objectives on the ground. It is usually assumed that the connection exists, but it is often tenuous in practice.

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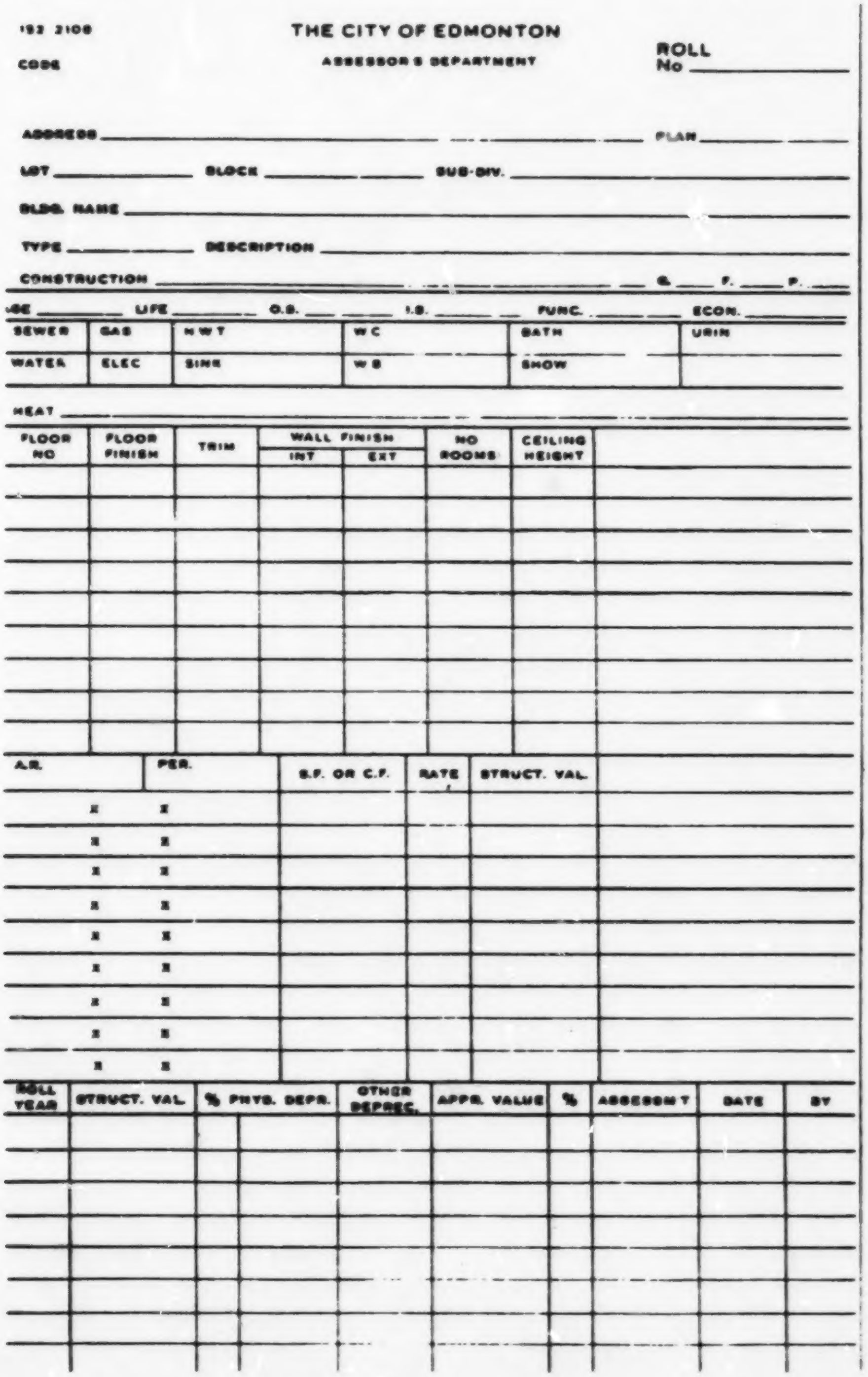
APPENDIX 1

Copy of record card used by the Assessor's Department of the City of Edmonton.



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CODE

THE CITY OF EDMONTON

ASSESSOR'S DEPARTMENT

ROLL No ____________

ADDRESS ______________________________ PLAN ____________

LOT ____________ BLOCK ____________ SUB-DIV. ____________

BLDG. NAME ______________________________

TYPE ____________ DESCRIPTION ______________________________

CONSTRUCTION ______________________________ G. ____ F. ____ P. ____

GE ________ LIFE ________ O.B. ________ I.B. ________ FUNC. ________ ECON. ________

SEWER	GAS	HWT	WC	BATH	URIN
WATER	ELEC	SINK	WB	SHOW	

HEAT ______________________________

FLOOR NO	FLOOR FINISH	TRIM	WALL FINISH		NO ROOMS	CEILING HEIGHT	
			INT	EXT			

A.R.	PER.	S.F. OR C.F.	RATE	STRUCT. VAL.	
x	x				
x	x				
x	x				
x	x				
x	x				
x	x				
x	x				
x	x				
x	x				

ROLL YEAR	STRUCT. VAL.	% PHYS. DEPR.		OTHER DEPREC.	APPR. VALUE	%	ASSESSM'T	DATE	BY

TITLE NO.	DATE	ASSCE. FUND VALUE	REMARKS

PERMIT NO.	YEAR	AMOUNT	WORK	BY

APPENDIX 2

Form used for recording data extracted from the tax assessment record of the City of Edmonton.

address

file number

roll number

block number

lot number

landuse code

structural type

construction quality

building quality

year built

effective age

difference between effective
age and year built.

number of rooms

total area of house or
building.

Have improvements occurred that have resulted in an
increase in the structural value of the property.......1971-1976

" " " " " " " " " 1977-1981

" " " " " " " " " 1982-1985

" " " " " " since yr of plan implementation

number of building permits 1971-1985

number of building permits since yr of plan implementation

value and year of building permits year
value

has the building been demolished

year of demolition

use demolished

replacement use

has the building been converted

new use of building

year of conversion

previous use of building

has the building been reconverted

new use of reconverted building

year of reconversion

previous use of building

has the site been redeveloped

the new use on the site

year of redevelopment

previous use on the site

number of ownership changes 1971-1985

number of ownership changes since plan implemented

year of sale
value of sale

occupancy type (tenure)

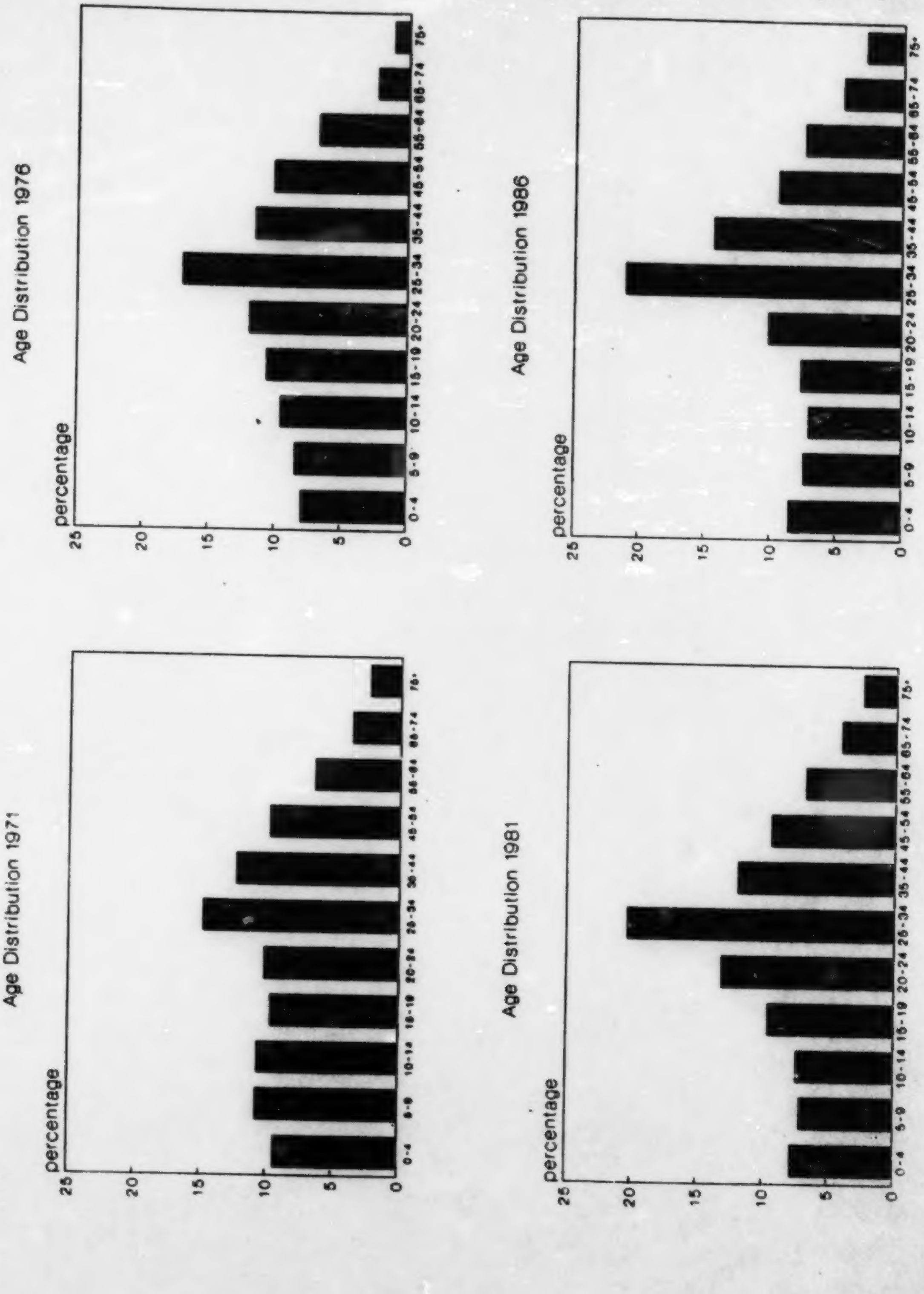
structural value...

structural value...

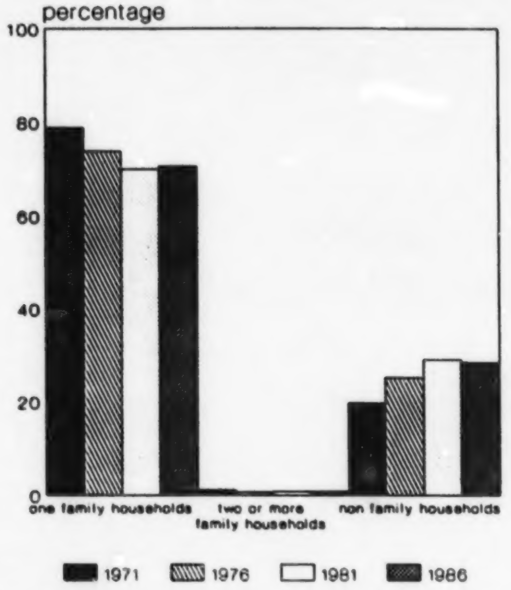
structural value...

details of improvements made that changed the structural value of the building or resulted in the building quality being improved on assessment card.

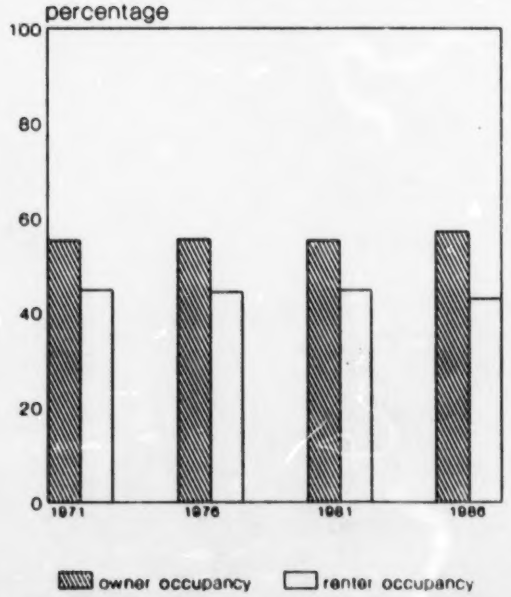
APPENDIX 3
Population graphs for the Edmonton census metropolitan area 1971-1986



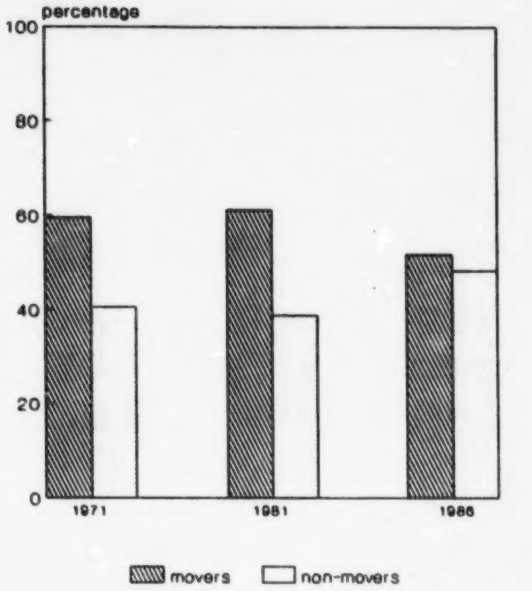
Edmonton CMA Age Distribution 1971-1986



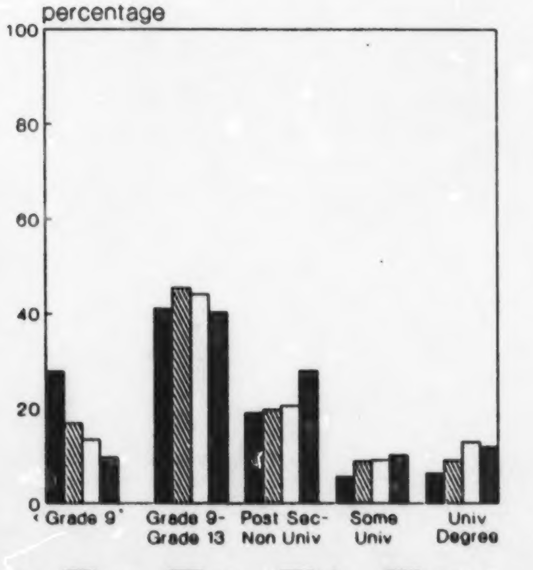
Edmonton CMA Types of Households 1971-1986



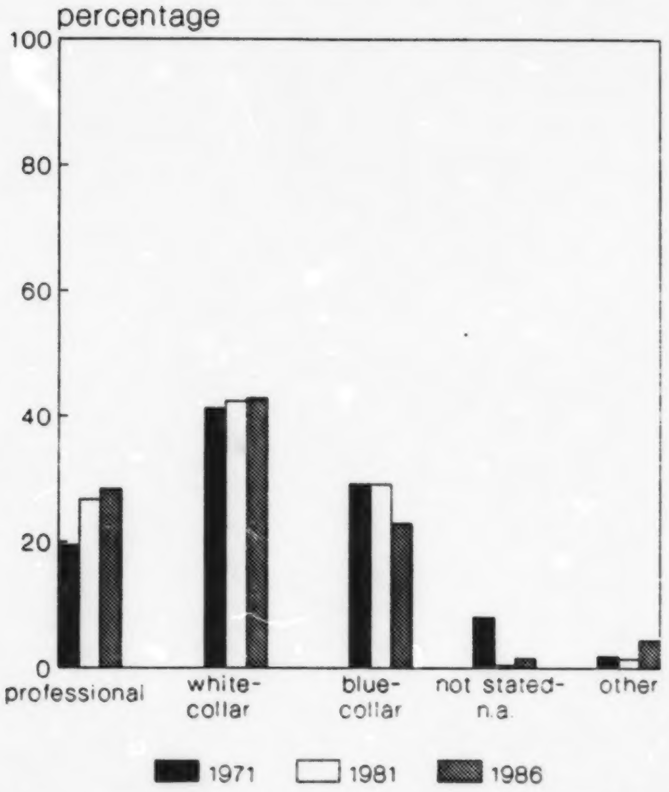
Edmonton CMA Occupancy Type 1971-1986



Mobility Status in the Edmonton CMA 1971-1986

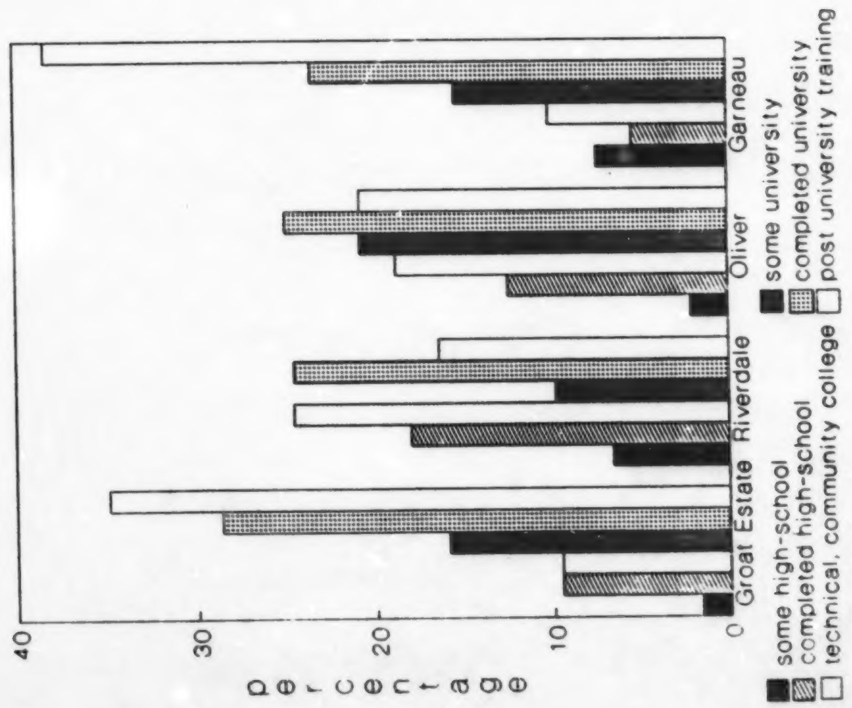


Edmonton CMA Educational Attainment 1971-1986

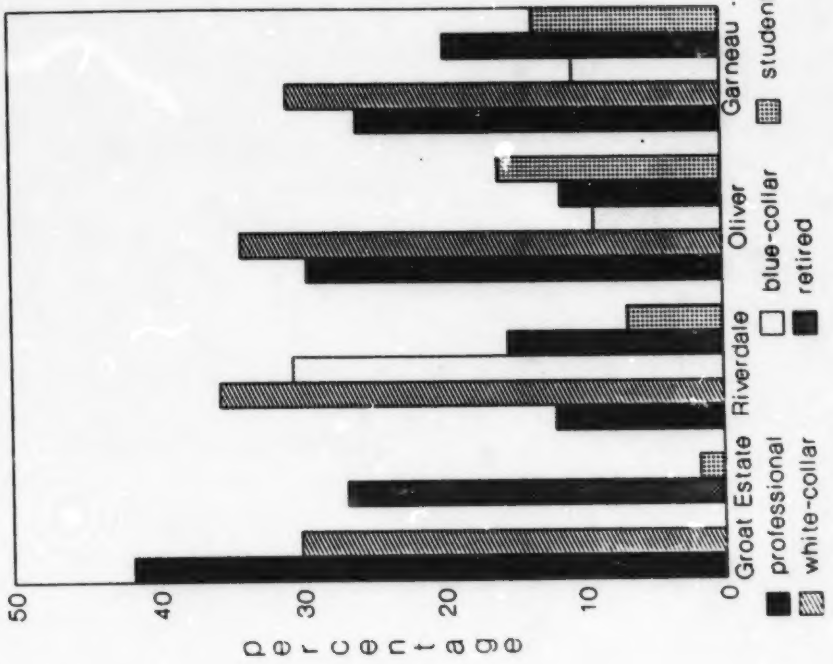


Edmonton CMA Occupational Status 1971-1986

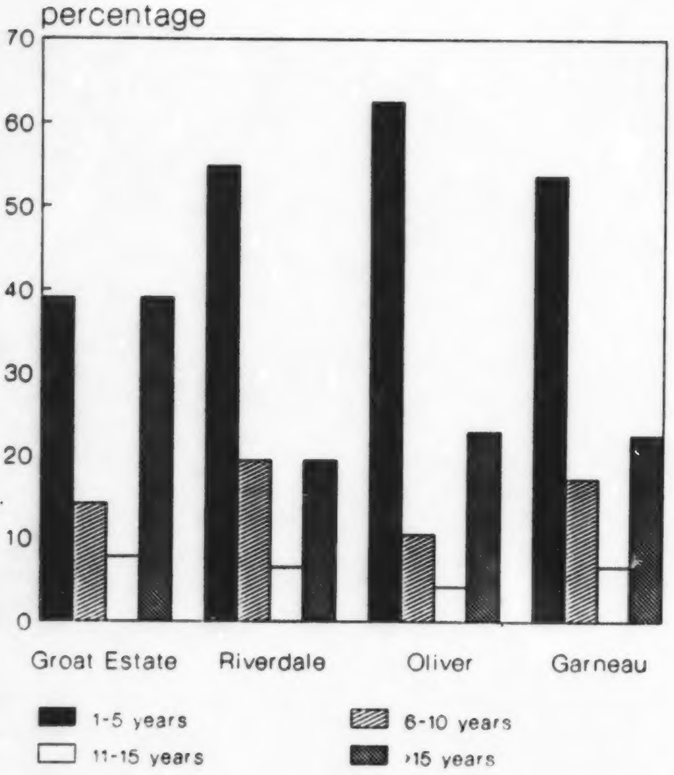
APPENDIX 4
Profile of the survey respondents



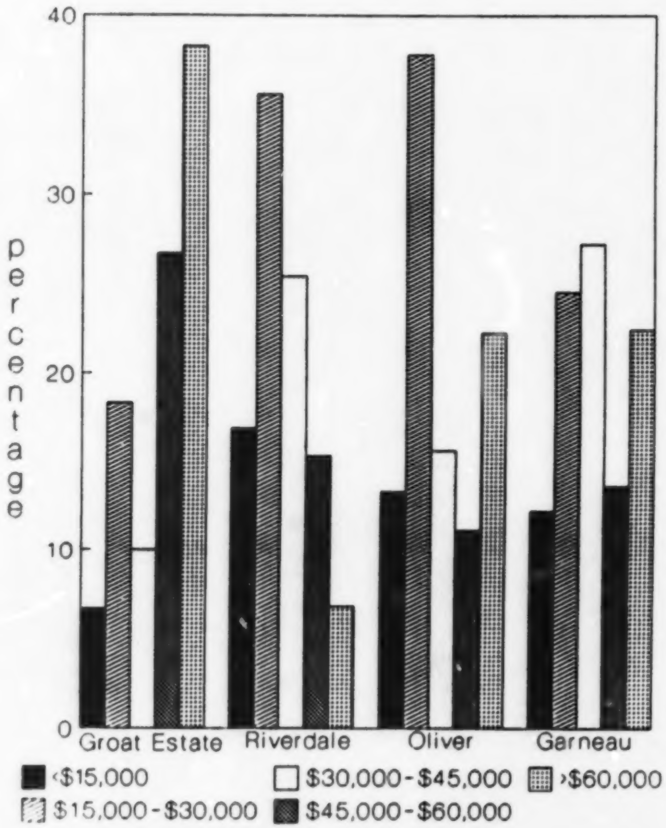
Survey Respondents' Educational Attainment



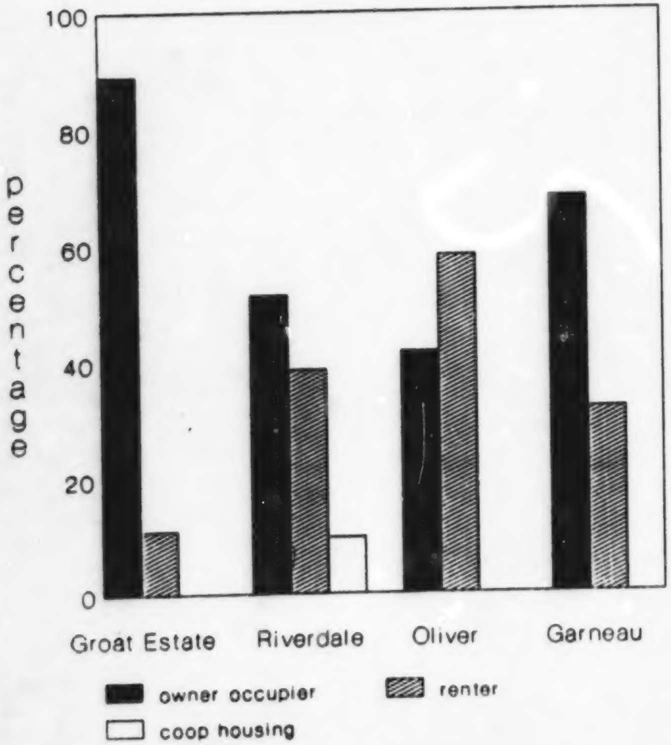
Survey Respondents' Occupational Status



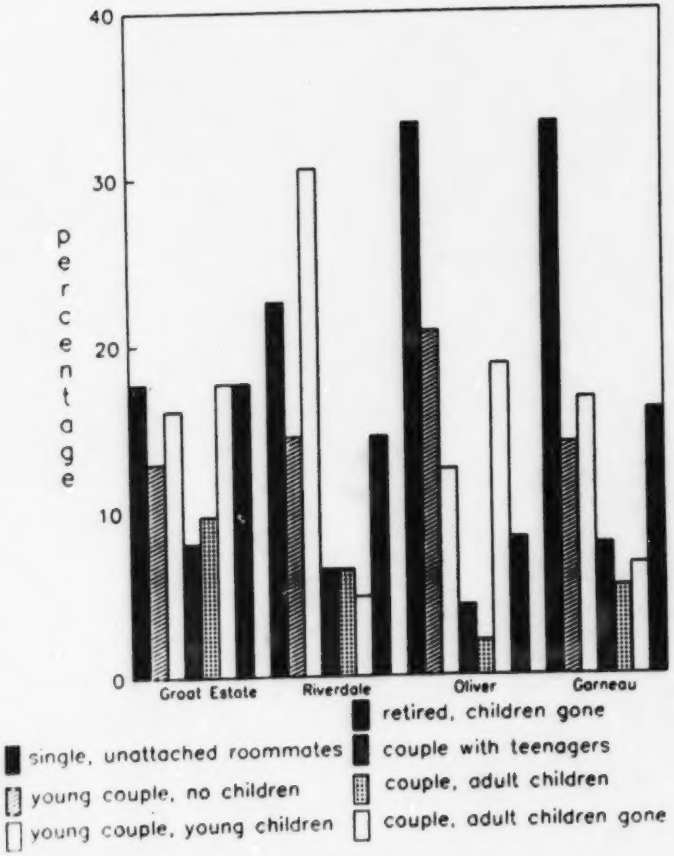
Survey Respondents' Length of Residency



Survey Respondents' Income Levels



Survey Respondents' Occupancy Type



Survey Respondents' Types of Households

NEIGHBOURHOOD SURVEY

1. Please indicate the amount of knowledge you have about the neighbourhood plan, approved in 1981? (Circle one number.)

   1 I HAVE READ THE PLAN DOCUMENT, KNOW ITS CONTENTS WELL, AND ATTENDED PUBLIC MEETINGS WHEN THE PLAN WAS BEING DEVELOPED.

   2 I KNOW GENERALLY WHAT KINDS OF DEVELOPMENT THE PLAN PERMITS AND PROHIBITS IN THE NEIGHBOURHOOD.

   3 I KNOW THAT A PLAN EXISTS, BUT DONT KNOW ANY DETAILS ABOUT IT.

   4 BEFORE NOW I DID NOT KNOW THAT A PLAN EXISTED.

ABOUT THE PLAN

If you did not know about the existence of the plan, here is a brief summary. The main aim of the plan was to protect the residential environment and housing quality of . This meant that the number of family houses should be maintained and if possible increased, that existing houses should be improved, and business should not be allowed to encroach upon the neighbourhood. Given the fact that this plan has been in force since 1981, the following questions are designed to find out what you think about the way the neighbourhood has been developing.

2. In your estimation, has the neighbourhood plan been effective or ineffective in improving the condition of the roads, sidewalks, trees, grass areas and so on that make up your area? (Circle one number.)

   1 NOT AT ALL EFFECTIVE
   2 NOT TOO EFFECTIVE
   3 SOMEWHAT EFFECTIVE
   4 VERY EFFECTIVE
   5 NO OPINION

3. In your estimation, has the neighbourhood plan led to an improvement in the condition of houses in the area? (circle one number.)

   1 NOT AT ALL EFFECTIVE
   2 NOT TOO EFFECTIVE
   3 SOMEWHAT EFFECTIVE
   4 VERY EFFECTIVE
   5 NO OPINION

4. In your estimation has the neighbourhood plan been effective or ineffective in reducing the flow of traffic and the associated problems of noise and traffic congestion on residential streets? (Circle one number).

   1 NOT AT ALL EFFECTIVE
   2 NOT TOO EFFECTIVE
   3 SOMEWHAT EFFECTIVE
   4 VERY EFFECTIVE
   5 NO OPINION

5. In your estimation, has the neighbourhood plan been effective or ineffective in preventing highrise and walkup apartments from increasing in number in the area, at the expense of houses? (Circle one number.)

   1 NOT AT ALL EFFECTIVE
   2 NOT TOO EFFECTIVE
   3 SOMEWHAT EFFECTIVE
   4 VERY EFFECTIVE
   5 NO OPINION

6. In your estimation has the neighbourhood plan been effective or ineffective in preventing the conversion or redevelopment of houses, in existing residential portions of the neighbourhood, into offices or shops? (Circle one number.)

   1 NOT AT ALL EFFECTIVE
   2 NOT TOO EFFECTIVE
   3 SOMEWHAT EFFECTIVE
   4 VERY EFFECTIVE
   5 NO OPINION

7. The following list summarizes issues felt to be of concern by both residents and planners when the plan was being prepared. Using the scale provided, please indicate the extent to which you feel they are of concern today (circle one number for each issue listed).

To help you interpret the scale used in the question:
1 means that the issue is not a concern or problem today
2 means that the issue is a slight problem today
3 means that the issue is a definite problem today
4 means that the issue is quite a bad problem today
5 means that the issue is a severe problem today
6 means that you dont know anything about the issue

	NOT A CONCERN				MAJOR CONCERN	DONT KNOW
Demolishing houses and replacing them with apartments or business premises.	1	2	3	4	5	6
Traffic noise, pollution, congestion on neighbourhood streets	1	2	3	4	5	6
Construction of houses and other buildings in inappropriate styles and sizes	1	2	3	4	5	6
Converting houses into offices or business premises	1	2	3	4	5	6
Deteriorating condition of houses in the neighbourhood.	1	2	3	4	5	6
Deteriorating streets, streetlights, sidewalks, parks and the like.	1	2	3	4	5	6

8. In your estimation, has the plan been effective or ineffective in making the neighbourhood a better place to live? (Circle one number.)

1 NOT AT ALL EFFECTIVE

2 NOT TOO EFFECTIVE

4 SOMEWHAT EFFECTIVE

5 VERY EFFECTIVE

6 NO OPINION

The following section of the survey is designed to help me understand the nature and extent of house renovation and repair in the neighbourhood. All the information is strictly confidential and the results will be used for producing a broad summary only.

9 . Using the chart and lists below, please describe all the renovation work that has been carried out on your dwelling since 1971, or since you moved in.

Please note that you may list more than one category of renovation and more than one renovation project. One example is given below.

	example				
Year work carried out	1979				
Value of the work carried out in the project	$21,000				
Work done by contractor? 1 = YES, 2 = NO	1				
Type(s) of interior work carried out (insert the appropriate number(s) from the list below)	1, 2, 6				
Type(s) of exterior work carried out (insert the appropriate number(s) from the list below)	5				

Categories of Interior Work

1 Interior Refinishing, incl. paint, stain, plasterwork, drywall, floors, carpets

2 furnace, heating ducts, insulation

3 Electrical rewiring

4 General plumbing work

5 Renovation, repair, or addition of a bathroom

6 Basement (re)development

7 Complete interior remodelling, house gutted

8 Attic or dormer development

9 Kitchen renovation

10 New fireplace

11 Jacuzzi, hot tub, sauna

Categories of Exterior Work

1 Exterior Refinishing, incl. paint, stain, repair or replace stucco or siding

2 Reroofing, roof repair

3 New windows, skylights

4 New deck, balcony, porch, verandah

5 Addition of one or more room(s) incl. enclosure of verandah

6 Repair or replacement of foundation

10a. Why did you decide to renovate or repair your house? (Circle the appropriate numbers).

1 BASIC MAINTENANCE AND REPAIRS WERE NECESSARY

2 PREVIOUS RENOVATION AND REPAIRS WERE INAPPROPRIATE OR INSUFFICENT FOR OUR FAMILY NEEDS, SUCH AS ADDING SPACE DUE TO FAMILY EXPANSION.

3 PERSONAL SATISFACTION IN UPGRADING THE STYLE AND LOOKS OF THE HOUSE.

4 THE DESIRE TO ENHANCE THE RESALE VALUE BY UPGRADING THE HOUSE

5 KNOWING THAT THE AREA IS PROTECTED BY A NEIGHBOURHOOD PLAN ENCOURAGED US TO INVEST IN RENOVATION WORK.

6 I DIDNT RENOVATE MY HOUSE.

7 OTHER (SPECIFY).....................................

....

10b. With reference to the list above, please indicate the most important and second most important reasons why you renovated your house.

The MOST IMPORTANT reason ....

The SECOND MOST IMPORTANT reason ....

In the last section please provide a few facts about yourself and your household. These questions will be used for classification purposes only. Like the rest of the questionnaire, your answers will be kept completely confidential.

11. How long have you lived in your present house? ....years

12. How would you describe your household? (Circle one number.)

1 SINGLE PERSON OR UNATTACHED ROOMMATES

2 YOUNG CHILDLESS COUPLE

3 YOUNG FAMILY WITH YOUNG CHILD(REN)

4 MORE MATURE FAMILY WITH TEENAGER(S) AT HOME

5 MATURE FAMILY WITH ONE OR MORE ADULT CHILDREN AT HOME

6 MATURE FAMILY, CHILDREN GONE, OR NEVER HAD CHILDREN

7 RETIRED PERSON OR COUPLE

13. What is the highest level of formal education you have achieved? (Circle one number)

    1 SOME HIGH SCHOOL

    2 COMPLETED HIGH SCHOOL

    3 POST SECONDARY\TECHNICAL COLLEGE\COMMUNITY COLLEGE

    4 SOME UNIVERSITY

    5 UNIVERSITY GRADUATE

    6 POST GRADUATE UNIVERSITY OR PROFESSIONAL STUDIES

14. Into which of the following categories does the total annual income of your entire household fall? (Circle one number.)

    1 LESS THAN $15,000

    2 $15,000 to $30,000

    3 $30,000 to $45,000

    4 $45,000 to $60,000

    5 $60,000 AND OVER

15. What is your current occupation?.................................

16. Do you own your dwelling, rent it, or do you live in a housing cooperative? (Circle one number.)

    1 OWN

    2 RENT

    3 HOUSING COOPERATIVE

Thank you for your assistance.
Further comments are welcome.